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May 15, 1961


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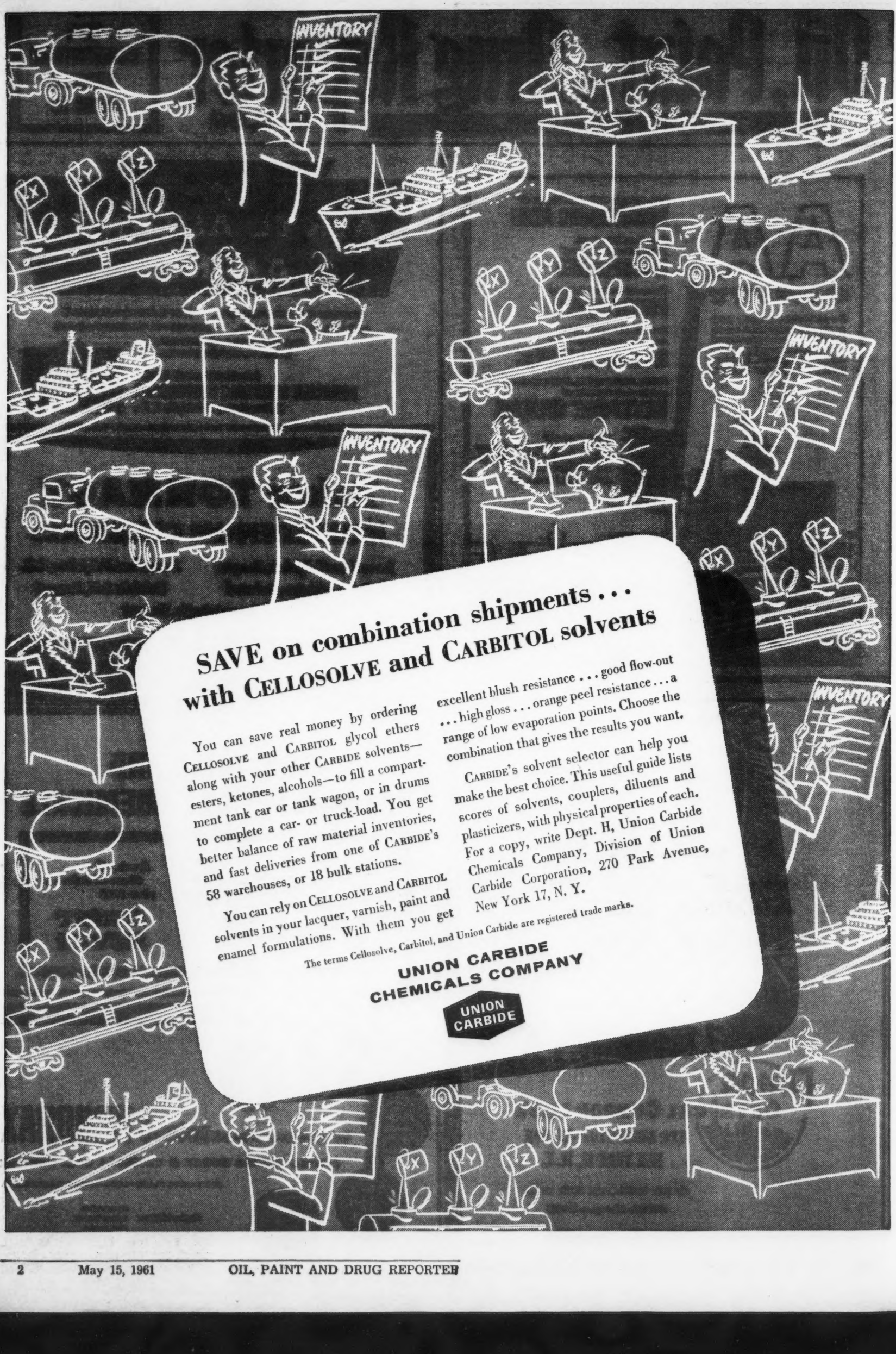
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Oil, Paint and Drug Reporter

Vol. 179 No. 20 30 Church St., New York 7, N.Y. May 15, 1961

## VINYL ACETATE USE PATTERN

### Polyvinyl Acetate Leads Growth Parade

| | 1965 (millions of pounds) | 1960 |
|---|---|---|
| Polyvinyl acetate .... | 240 | 155 |
| Polyvinyl alcohol .... | 84 | 50 |
| Polyvinyl butyral*.... | 48 | 37 |
| Copolymers ..... | 41 | 32 |
| Exports ..... | 5 | 4 |
| Miscellaneous ..... | 7 | 7 |
| Total ..... | 425 | 285 |

*Includes formal

# Vinyl Acetate Producers See Demand Up 50 Percent in '65 From Level Attained in 1960

Vinyl acetate producers, not too happy about last year's estimated 285-million-pound market, are consoling themselves by predicting a near 50-percent rise in business by 1965. While a few forecasts are conservative, general feeling is that total supply (consumption) of monomer will reach 425 million pounds in that year. Backing this optimism are several developments in the industry during the last few months, both official and unofficial. Last July, Reichhold Chemicals, Inc., announced it would get into the VAc market with a 50-million-pound-a-year plant. It has been understood right along that the Borden Chemical Company-US Rubber Company joint venture—Monochem, Inc.—will build a VAc plant at its projected complex in Geismar, La. Possible capacity is estimated at 50 million pounds a year.

**OPD 'Depth' Report**

Most recently, Tenneco Chemical Company, a subsidiary of Tennessee Gas Transmission Company, said it would build a VAc plant at its new Houston, Tex., complex. Here again, it's believed, a 50-million-pound unit will be put up.

**Other Possibilities Rumored**

At various times over the past couple of years, it's been bruited about that National Starch & Chemical Corporation and Dewey & Almy Chemical Division of W. R. Grace & Co. were thinking of integrating backward into VAc. Each has polyvinyl acetate capacity in the neighborhood of 20 million pounds per annum.

*PVAc Production*

| | |
|---|---|
| 1965 | *240 million lbs. |
| 1962 | *160 million lbs. |
| 1960 | *155 million lbs. |
| 1959 | 139 million lbs. |
| 1958 | 118 million lbs. |
| 1957 | 100 million lbs |
| 1956 | 79 million lbs. |
| 1955 | 73 million lbs. |

* Estimate.
Source: Tariff Commission.

It has also been suggested that the two together were interested in the setting-up of a joint VAc operation. A logical location would be the Memphis, Tenn., plant of W. R. Grace.

Other possibilities of plant construction ventures involve Diamond Alkali Company (which has acetylene at Deer Park, Tex.), although there is nothing from the company itself on the matter.

What has the trade guessing at the moment is Reichhold's venture. Reichhold, when it announced its vinyl acetate project, left the plant site unnamed, pending negotiations with acetylene suppliers.

This could mean, according to the trade, that Reichhold might hook in with Tenneco, Diamond, or even Monochem, depending on whether the latter is ready to

—Continued on page 42

## VINYL ACETATE TOTAL SUPPLY

1965 . . . .*425 million lbs.
1963 . . . .*325 million lbs.
1960 . . . .*285 million lbs.
1959 . . . . 283 million lbs.
1958 . . . . 221 million lbs.
1957 . . . . 205 million lbs.
1956 . . . . 203 million lbs.
1955 . . . . 167 million lbs.

*Estimate

Source: Tariff Commission

# Oxo Price Cuts Raise a Question: Is a Marketing War in the Making?

Is a price war in the making? This ugly market question hovers over chemical producers in the wake of major surgery performed last week on oxo quotations. As much as 4 cents a pound was hacked off schedules on oxo alcohols and derivative plasticizers. While no one in the trade was willing to come forward with a ready explanation of this drastic performance, the reason isn't hard to find: the spate of expansion projects that will bring oxo alcohol capacity to an estimated 580 million pounds next year.

TAKES THE HELM: Dr. L. Patrick Moore, elected president of Arizona Chemical Company, New York. He had been president of Cyanamid of Canada, Ltd., a post which has gone to Burton F. Bowman (see picture on page 5). Henry W. Bajak and Claude J. Kirkland have been elected vice-presidents of Arizona Chemical.

Setting the stage for this price massacre was last month's announcement by Reichhold Chemicals, Inc.—large-volume merchant consumer of oxo alcohols in plasticizers—that it has signed up to take the bulk of the 60-million-pound-a-year output on a new oxo plant slated by Tidewater Oil Company and Air Products, Inc., (OPD, 4/24/61).

Worrying producers, too, are these other oxo developments:

**Other Oxo Developments**

- Enjay Chemical Company will have 30 million pounds more of oxo capacity in place at Baton Rouge, La., by early '62.
- Oxo Chemical Company plans to complete a 40-million-pound facility at Haverhill, Ohio, by next year.
- Gulf Oil Corporation this week dedicates a new 36-million-pound oxo alcohol installation at Philadelphia.
- Monsanto Chemical Company will put up a unit—to be ready sometime next

—Continued on page 79

# Merck Acquires Cipelli, Italian Drug Manufacturer

Merck Sharp & Dohme International, a division of Merck & Company, has acquired the assets of Cipelli Industria Farmaceutica, a pharmaceutical manufacturer of Pavia, Italy.

The Cipelli purchase will provide for expanded marketing of major Merck Sharp & Dohme specialties such as corticosteroids, diuretics, antihypertensives and antihistaminics, the company says. Heretofore, Merck Sharp & Dohme products have been available in Italy through local distributors.

Cipelli's present line of ethical drugs will be continued and its plant will be expanded to produce MS&D specialties. The Cipelli management and all personnel will be integrated into Merck Sharp & Dohme (Italia) SpA, a subsidiary of Merck & Co., according to a joint statement by Merck and the Italian firm.

# Firestone Vinyl Resins Getting Bigger Home

Firestone Tire & Rubber Company has just completed a 20 percent expansion of its "Exon" vinyl resin facilities at Pottstown, Pa. Looming large in the new capacity are latices for the paint industry, but straight resin capacity has also been boosted.

The program, begun last spring, includes enlargement of the reactor build-

—Continued on page 39

# DuPont's New Quest: A Market for 'Baymal'

Wanted: A big market for a little chemical. That is the hope of E. I. duPont de Nemours & Co. concerning its new development, "Baymal" colloidal alumina. The Wilmington, Del., firm is aiming at the big pondage market, and thinks it has the product that can reach it.

The company calls "Baymal" a versatile addition to the inventory of basic chemicals that are available to industry today. Research chemists who developed it say "Baymal" has more unique properties and use possibilities than any chemical to emerge from their laboratories in many a year.

The product is being produced in developmental quantities at duPont's Belle, W. Va., plant. A limited supply of one-pound

—Continued on page 70

RIGHT HAND MAN: Edwin E. Tuttle, former controller of Pennsalt Chemicals Corporation, Philadelphia, named assistant to the president, William P. Drake.

# Ethylene Forecast: 10 Billion Pounds Capacity by 1970

Ethylene plant capacity in the US should grow from the present 6 billion pounds a year to about 10 billion by 1970, while other light olefins—such as propylene, butylenes and butadiene—ride an even sharper growth curve. Such at least was the picture to emerge at last week's meeting of the American Institute of Chemical Engineers in Cleveland, Ohio. It was sketched in by J. A. Knaus and J. L. Patton in a paper titled "Effect of Feed Composition on Ethylene."

Emphasized in the paper was the limited capacity of petroleum streams.

"A part of the demand for these products can be met by recovery from petroleum streams," the authors said, "but a major portion must come through such technics as the thermal or catalytic conversion of petroleum fractions."

Noting the outstanding growth rate of light olefins in the past, the paper called particular attention to ethylene production, which has climbed at a rate of 400 million pounds a year in the past decade, "spurred chiefly by a combination of recovery from refinery gas streams and by the dehydrogenation of natural gas and gasoline hydrocarbons."

Turning to technical matters, the speakers called attention to the fact that "the effect of composition of light naphthas on pyrolisis production distribution can be predicted from the analysis of the feed stock."

"Variations in the feed composition in the light naphtha range markedly affect the ratio of by-products to ethylene," it was noted.

In this connection, investment cost and operating costs were held to show significant variations as feed stock composition is changed.

In another AIChE paper, George W. Blum, of Goodyear Tire & Rubber Company, warned that higher production is

—Continued on page 48

# FDA Enforcement Strengthened In New Appeals Court Decision

Food & Drug Administration's enforcement hand is materially strengthened by a decision last week of the US Court of Appeals for the Second Circuit. In what is regarded by FDA officials as an important ruling, the court declared that the federal food, drug and cosmetic law must be read and applied broadly to effectuate its remedial purpose. Therefore, said the court, food products which move lawfully over interstate lines to be blended and sold locally—but in an adulterated form—still remain subject to the federal statute.

The decision reversed an earlier ruling this year by Federal District Judge James T. Foley in Syracuse, N. Y., that a blend of vegetable oils offered for sale only in New York cannot be seized by federal agents even though it may be adulterated.

**Judge Foley's Reasoning**

Judge Foley held that various oils lose their interstate identity once they are blended because a new product is created. He said that only the New York State food and drug law is applicable to this situation.

The circuit court reached its findings that the federal law applies by tracing the development of the federal law since 1906.

This first law authorized seizure only if the adulterated or misbranded food or drug was being transported in interstate commerce, "or, having been transported, remains unloaded, unsold, or in original unbroken packages."

From 1938 to 1948, the law provided for condemnation of articles of food that were adulterated or misbranded only "when introduced into or while in interstate commerce."

This language was held not to authorize seizure of food that was pure and properly labeled while in interstate commerce and became adulterated or misbranded only after the interstate trip had been completed.

In 1948, however, congress amended the law so as also to permit seizure of food that was adulterated or misbranded "while held for sale (whether or not the first sale) after shipment in interstate

—Continued on page 39

### *Schering Scores Again: New Steroid on Market*

Schering Corporation has come up with a new steroid which may prove "the most important step ahead since the discovery of prednisone and prednisolone."

The drug, trade-named "Celestone," was so described by two physicians reporting at a symposium in New York last week.

In 150 of 154 cases studied, "Celestone" gave good to excellent results "with fewer and less severe side effects compared with older steroids," it was reported.

Chemically, "Celestone" is betamethasone, a derivative of the steroid dexamethasone. It had been under intensive clinical investigation for two years and is now available on prescription, Schering reports.

## Chemical Barges: Something New Afloat

Chemical shippers have something new in water transportation coming their way—a fleet of five cost-cutting barge tanks for use on the Mississippi River and Gulf Intracoastal systems.

In announcing plans for the barges in New York last week, National Marine Service, Inc., promised to pass on cost savings made possible by a "double-skin" design which is said to eliminate the expensive barge cleaning now necessary before handling a return cargo.

The design features a raised inner container completely sealed off from an outer container. In effect, says National Marine, "this will provide the barge with two separate and distinct cargo carrying

—Continued on page 44

## Chemical Antitrust Probe Spurred by Identical Bids

Identical bidding in the chemical industry on supplies of some of the industry's products bought by the government is a key factor in the antitrust investigations of pricing practices being conducted by the Department of Justice in some parts of the industry.

This was indicated last week by Lee

—Continued on page 48

## Methacrylate Monomers Offered by Rohm & Haas

Commercial quantities of dimethylaminoethyl methacrylate (DMAEMA) and tert-butylaminoethyl methacrylate (t-BAEMA) are now available from Rohm & Haas Company, Philadelphia.

The compounds are described as readily polymerizable acrylic monomers "which provide a means of introducing pendant, reactive amine groups into plastics, elastomers, coatings and fibers."

They may also be useful chemical intermediates, R&H says, because their amine groups and double bonds can enter into a wide variety of reactions.

The amine functional group permits preparation of copolymers which have improved adhesion to a large number of substrates and which provide anchoring sites for dyes and pigments, according to the company.

## *The Week's Price Changes*

**Copper Carbonate, Copper Sulfate, Copra, Fish Oil Advanced. Ethylhexyl Adipate, Oxo Alcohols, Phthalates Reduced.**

### Prices Advanced

Coconut oil, crude, ¼c. per lb. (p. 73).
Copper carbonate, dark dense, 55c. per 100 lbs. (p. 36).
Copper chlordie, ½c. per lb. (p. 36).
Copper sulfate, cryst., 25c. per 100 lbs. (p. 36).
Monohydrated, 35c. per 100 lbs. (p. 36).
Tribasic, 50c. per 100 lbs. (p. 36).
Copra, $2.50 per ton (p. 73).
Fish oils, refd., ½c. per lb. (p. 73).
Soybean meal, $1.50 per ton (p. 73).

### Prices Reduced

Cocoa butter, 1½c. per lb. (p. 73).
Decyl alcohol, 3c. per lb. (p. 43).
di-Decyl phthalate, 2c. per lb. (p. 71).
di-Ethylhexyl adipate, 4c. per lb. (p. 71).
di-2-Ethylhexyl phthalate, 2c. per lb. (p. 71).
2-Ethylhexyl alcohol, 3¼c. per lb. (p. 43).
Grease, choice white, ¼c. per lb. (p. 73).
Iso-octyl alcohol, 3c. per lb. (p. 43).
Linseed meal, 50c. per ton (p. 73).
Soybean oil, crude, ¼c. per lb. (p. 73).
Refd., ¼c. per lb. (p. 73).
Tallow, edible, ¼c. per lb. (p. 73).
Tridecyl alcohol, 4c. per lb. (p. 43).
Tung oil, ¼c. to ½c. per lb. (p. 73).

### OPD Price Index

THE OIL, PAINT AND DRUG REPORTER's relative record of prices of chemicals and related materials is currently as follows:

(100=1949 average)

| May 12, 1961 | May 5, 1961 | May 13, 1960 |
|---|---|---|
| 113.11 | 113.02 | 110.95 |

## Rayon: 'Clear Road Ahead'

Rayon producers have "turned a corner" in the race for the tire cord market. Russell F. Erickson, president of Rayonier, Inc., told the New York Society of Security Analysts last week that rayon is a cinch to enlarge its position in the tire cord market because it gives better mileage, is better suited to fuse the yarn to the rubber and is cheaper than nylon. Mr. Erickson's view, which is in contrast to the view of the tire cord industry at large, is supported by these unofficial findings:

- Rayon tire cord gives from 18 to 20 percent better mileage in passenger cars. Truck users have reported greater dimensional stability plus higher mileage.
- The two-ply rayon cord possesses finer properties in developing the yarn to the rubber than does the conventional four-ply nylon cord.
- This two-ply rayon is cheaper than greater-ply nylon.

Mr. Erickson conceded that nylon has made great inroads in a market which used to be almost exclusively rayon's. In 1955-56, 83 percent of the tire yarn market belonged to rayon whereas in 1960-61, only 66½ percent of it is rayon.

As far as Rayonier is concerned, however, this loss in the domestic market has been offset by expanding world markets.

For example 7.4 percent of the New York company's domestic business is in the high-tenacity yarn, whereas 14 per-

—Continued on page 67

**SALES CHIEF: John H. Bigelow, appointed administrator of petrochemical sales by Texaco Canada, Ltd.**

## Reichhold Forms Affiliate For Resins in Puerto Rico

Reichhold Chemicals del Caribe, Inc., has just been established at Santurce, Puerto Rico, to manufacture synthetic resins and latex emulsions.

The company is a joint venture of Reichhold Chemicals, Inc., White Plains, N.Y., and Adolfo Vianova, jr., a Puerto Rican industrialist.

Initial capitalization of the company is $500,000 for a plant and equipment at Santurce. Construction time table for the facility was not disclosed.

Its output will be sold in Puerto Rico through C. Withington Company, located at Long Island City, N.Y., and Santurce.

## Chlorine-Caustic Capacity Of GAF to Rise at Linden

Antara Chemicals, a division of General Aniline & Film Corporation will put up a 180-ton-per-day addition to its chlorine-caustic facility at Linden, N.J. The expansion, to be completed in early 1963, will increase capacity to 230 tons per day.

The new addition will be a multi-million-dollar project, GAF says. Construction is slated to get under way in the near future.

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**COMPANY'S HEAD: Burton F. Bowman, elected president of Cyanamid of Canada, Ltd., subsidiary of American Cyanamid Company. He succeeds Dr. L. Patrick Moore (see picture on page 3).**

## Collier Sees Boosts In Its New Projects

New projects under way for Collier Carbon & Chemical Corporation, Los Angeles, are expected to boost sales and profits by more than 50 percent over the next two years. That is the official estimate—and it comes from the Collier front office.

The company, a subsidiary of Union Oil Company of California, had sales of $25 million in 1960, representing a fourteen-fold increase since 1950. Its plans for the future, says board chairman Robert T. Collier, "include more integration to improve realizations; broader diversification, and expanded distribution throughout the Western Hemisphere."

In presenting the company's story to the New York Society of Security Analysts last week, Mr. Collier called attention to these key expansion projects:

- A new petroleum carbon processing plant now on stream at a site adjacent to Union Oil's San Francisco area refinery. Output is moving to the West Coast aluminum industry.
- A 250-ton-a-day sulfuric acid plant adjacent to Union's Los Angeles refinery —completed last November.
- A plant to produce anhydrous liquid phosphoric acid — placed in operation at Kellogg, Idaho, during March.
- A joint venture in petroleum naphthalene with Tidewater Associated Oil Company. The facility, Collier's first in the East, is slated to come on stream in November of this year, using a patented process developed by Union Oil. Plans are under way to build a similar plant in Los Angeles.
- Acquisition in March of all outstanding stock of Pacific Guano Company, a West Coast marketer of agricultural chemicals.

Capital expenditures in 1960 totaled in

—*Continued on page 48*

## Montecatini to Produce New Synthetic Rubbers

Montecatini Societa Generale, Milan, Italy, will produce three newly-developed synthetic rubbers at its $170 million petrochemical complex now under construction at Brindisi.

The materials, introduced at the Milan World's Fair recently, are "Dutral," a copolymer of butadiene and propylene; "Astyr" 1.4 cis, a polypropylene derivative; and "Elarprin," a copolymer of acrylonitrile and butadiene.

Montecatini reports sales for 1960 of $565 million, a gain of 19.5 percent over the $472 million of 1959.

# Chemical Makers Are Asking: Why Muddy the Waters Further With Drastic Pollution Curbs?

Chemical producers see no need for drastic federal enforcement powers to prevent water pollution. Furthermore, they think it is inconsistent to grant funds to state agencies, thus encouraging the formation of regional water pollution agencies with broad authority, and then to supplant them by concentrating enforcement in a federal official. This is what will happen if congress passes the Blatnik bill (HR 6441 in its present form), O. C. Thompson, chairman of the water pollution abatement committee of the Manufacturing Chemists' Association, told a senate subcommittee last week.

Testifying before the rivers and harbors subcommittee of the senate, Mr. Thompson agreed that some increase in federal activity in the field of water pollution control would be helpful on a limited scale. But not of the magnitude proposed in the Blatnik bill.

**Blatnik Bill Antes Up $100 Million**

Approved by a near three-to-one vote in the house a week previously, the Blatnik bill boosts the government's ante for public pollution control schemes to $100 million a year, and extends its authority to force adherence to control plans for all navigable waters.

Mr. Thompson told the senate subcommittee that it is the hope of the chemical industry that a strengthened federal program will employ a helpful, rather than a punitive, approach to the problem, resulting in a true partnership between federal and state authorities who will cooperate with industry in solving the problem.

For this reason, he added, the chemical industry favors the Kerr bill (S 120) over the house-approved Blatnik bill.

The industry favors the emphasis in S 120 on providing adequate facilities for basic and applied research on water pollution and water-use problems, and it feels that the $5-million-per-year provision for carrying out this research is amply justified.

The industry, he continued, also approves the approach of leaving to the discretion of the administrator the location of the facilities and the number of facilities to be erected.

Also, it favors the Kerr bill's provisions for additional matching funds for local enforcement agencies, and does not object to increasing the government's share to $75 million annually.

Turning to the Blatnik bill, Mr. Thompson objected to provisions for enforcing control programs through administrative orders, rather than by the local district court, and to provisions that relegate state regional agencies to a less important role than they now play.

Mr. Thompson protested particularly against extending the federal government's authority to navigable waters, saying:

"Without attempting to explore the con-

—*Continued on page 48*

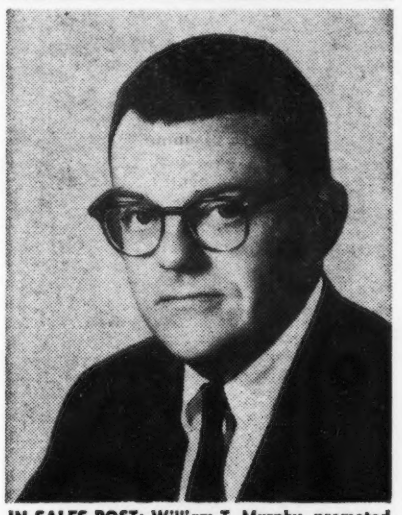
## USI Now Is Producing High-Purity Ethyl Ether

U.S. Industrial Chemicals Company, a division of National Distillers & Chemical Corporation, has just started up a new ethyl ether refining unit at Tuscola, Ill.

The facility produces absolute ethyl ether which meets American Chemical Society's newly-adopted specifications. In addition to being entirely free from foreign odor, the material falls within ACS's new tightly-set limits on peroxide content, aldehyde content and water content.

The new refining unit—part of USI's 3-million-gallon-a-year ether facility at Tuscola—is designed to produce ether that is superior for Grignard and lithium aluminum hydride reactions.

In addition to producing ACS absolute ethyl ether, USI makes ether to meet USP specifications for institutional and laboratory use and technically refined ether for industrial applications.



**IN SALES POST: William T. Murphy, promoted to general sales manager of Flint-Eaton & Co., a division of Baxter Laboratories, Inc., Morton Grove, Ill.**

## US Borax Preparing For Increased Demand

A resumption of the borax demand uptrend, come recession's end, will find US Borax & Chemical Corporation, the undisputed leader in the field, moving fast on a capacity expansion for both primary and specialized products.

As to how much and precisely what, the company has only this to say:

"The principal immediate benefit will be an increase in the supply of anhydrous products upon completion of additional fusing facilities."

Further, "the expansion is part of a continuing program designed to insure adequate supplies of various forms of borax as demand rises."

Construction is expected to be under way sometime this month with completion a year hence.

Hugo Riemer, president, notes that production expansion at Boron, Calif., has been made possible to a large extent "through technological progress without proportionate capital outlays for additional facilities."

"In this way," he adds, "the company is doing its utmost to minimize the effect of periodic wage and other increases."

## ICI Buys Up Dutch Maker Of Plastic Sheet and Film

Imperial Chemical Industries, Ltd., of Britain, is building up its European production and sales base. ICI's latest move is acquisition of Hollandsche Gummifabreiken Weesp, Dutch manufacturer of plastic sheet, film and PVC-coated fabrics.

The Dutch company will add to its line products now made by ICI in England and shipped to the continent. Before becoming final, however, the acquisition must be approved by the British Treasury and the Netherlands bank. Most of the capital of the Dutch firm is held by Hollandia Kattenburg of Amsterdam and Alfred Oswald Ferguson & Co., of Manchester, England.

# Chemical Leaders Like Gov't Policy On Freight Rates

The chemical industry is satisfied with the present government policy of establishing freight rates for chemicals and other products on a competitive basis. Its leaders believe that this is good not only for shippers but for the several forms of transportation—rail, water and highway—as well.

The industry's views on this question were made known to the senate commerce committee last week by John E. Hull, president of Manufacturing Chemists' Association, in a letter opposing enactment of S 1197 to revert back to the pre-1958 freight rate-making rule of favoring one mode of transportation over another.

**Teamsters Urge the Move**

The move to return to the old system is being urged on congress by the Teamsters Union, which claims that the Interstate Commerce Commission has been favoring reduction in railroad rates to a point where motor carriers can no longer compete.

The union says that since 1958 over 10,000 truckers have lost their jobs.

The present rate-making rule was written into the ICC law by congress in 1958 after two years of hearings.

It permits the commission to approve rate reductions motivated by competition between carriers, so long as the rates are compensatory. An example is the reduced rate schedule on paint in official territory which the railroads put into effect a year ago to recover the traffic lost to the truckers.

Mr. Hull told the senate committee that MCA believes that S 1197 is not in the interest of sound, efficient and economic transportation, and if enacted would be detrimental to the commerce of the United States.

"The new standards proposed," he said, "would eliminate rate competition under the guise of preventing destructive competition and would favor certain modes of transportation to the detriment of other modes.

"Adequate rate regulations should permit all modes of transportation to assert their full economic capabilities and ad-

—*Continued on page 69*

## Cyanamid Names Managers For Three Operating Units

American Cyanamid Company has appointed new general managers for three of its operating divisions. The appointments are effective July 1.

The new appointees are Dr. Robert P. Parker, Lederle Laboratories Division; Thomas P. Turchan, organic chemicals division, and Jerrold H. Ruskin, industrial chemicals division.

Dr. Parker has been assistant general manager of Lederle since 1958. He succeeds Lyman C. Duncan, who remains as an operating vice-president of Cyanamid with responsibility for Lederle and its surgical products division.

Mr. Turchan succeeds Neil B. Conley, who has been named to the executive staff of Kenneth H. Klipstein, president. He was previously general manager of the industrial chemicals division.

Mr. Ruskin, who has been serving since 1958 as president of Arizona Chemical Company, a joint venture of Cyanamid and International Paper Company, joined Cyanamid in 1947 as an attorney. New president of Arizona Chemical is Dr. L. Patrick Moore (see picture on page 3).

### *GSA to Become Buyer Of Non-Military Items*

The Pentagon has announced plans to make General Services Administration sole buyer of all non-military supply items needed by the government.

GSA, best known in the chemical industry as auctioneer for unwanted stockpile items, will be given responsibility for purchase of some 150,000 items by the end of fiscal 1963 (June, 30), the Department of Defense says.

Included: paints, solvents, pesticides and naval stores.

# Epoxy Railway Coaches? John Bull Toys With the Idea

Epoxy railway coaches? Word is now out that John Bull's transportation experts are seriously toying with the idea.

At least, so says J. F. Harrison, chief mechanical engineer of the British Transport Commission.

Mr. Harrison told a railway modernization meeting last week that the UK commission attaches "the greatest importance to the future of plastics for integral coach construction" for railroads.

What it is particularly interested in, he says, is epoxy resin glass fiber plastics.

British railway experts think a plastic railway coach would weigh about twenty tons empty, against thirty-three tons for mild-steel.

Mr. Harrison sees savings in fuel and general railway maintenance that would compensate for the present 60 percent additional cost of plastic coaches.

For trains of the same length, Mr. Harrison says, the plastic railway coaches could be pulled by a locomotive costing $218,000, against a $246,000 locomotive for aluminum coaches and a $300,000 locomotive for a mild-steel train.

The development of plastic coaches, he feels, would produce huge maintenance savings. For, he points out, there would be an end to corrosion problems; there would be no need for painting, and less damage to the roadbeds would result from the lighter-weight trains.

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# OPD REPORTS ON DYESTUFFS
## How Business Is Shaping Up

| | First Quarter Sales, 1961 |
|---|---|
| Acid Dyes | $4,526,740 |
| Basic Dyes | 2,958,405 |
| Mordant Dyes | 953,561 |
| Solvent Dyes | 1,403,607 |
| Vat Dyes | 9,995,516 |
| Total | $19,837,829 |

OPD's report of sales value is based on figures supplied by producers representing more than 80 percent of domestic output of the above dyestuff classes. The figure for acid dyes includes pre-metallized dyestuffs.

**OPD Reports From Europe**

## Chemical Firms in Europe Hope; And, Profitwise, That Is About All

Hopes for improved profits in the European chemical business are still just that—hopes. Such is the unwritten story in the reports of two overseas giants: Imperial Chemical Industries, Ltd., and Royal Dutch/Shell. To illustrate just how things have been going, ICI can count the reduction in its income well into the millions for 1960, while officials of Royal Dutch/Shell talk in terms of "relatively modest" profits for the same period.

The Royal Dutch/Shell world-wide petroleum group has invested around $560 million in petrochemical developments since World War II, with $315 million put up since the beginning of 1956.

**Profits Not Very Good**

But "the profits of the group chemical business have so far been relatively modest in relation to the total sums invested," comments Lord Godber, retiring chairman of "Shell" Transport & Trading Company, the London holding company twin of the British-Dutch giant.

Imperial Chemical Industries, second largest chemical company in the world

—*Continued on page 49*

**IN TOP POST: Cyril S. Kimball, elected president of Foster D. Snell, Inc., New York. He succeeds Dr. Foster Dee Snell, who has relinquished the presidency but will continue as board chairman.**

## Hercules (Canada) Slates Ventures With UK Firm

Hercules Powder Company (Canada) Ltd., and J. Gliksten & Son, Ltd., of England has formed two companies in British Honduras.

One company, Hercules British Honduras, Ltd., will process prime stumps and logs to make a naval stores extract for refining into rosins, turpentine and other naval stores products.

The second company, Pine Harvesters,

—*Continued on page 79*

# Chemical Man Looks at Africa And Then Advises Washington: Put Up Investment Guarantees

The federal government must strengthen its investment guarantee program in the new African countries, and it must increase the funds it makes available to American chemical companies and others for loans and loan guarantees to operate in these countries. Through diplomatic and information channels, the government must promote the kind of investment climate in these countries that is essential to the attraction of new capital.

Without such forthright action, this nation may find the developing African markets for American chemical products and plant investment slipping away to the other free western nations, which already are moving in that direction.

**Views of Olin's President**

These were the views expressed last week to a subcommittee of the house foreign affairs committee studying the African problem. They were given by Stanley de J. Osborne, president of Olin Mathieson Chemical Corporation, New York.

He, along with representatives of certain other companies with interests in Africa, appeared at the committee's invitation to suggest what Washington might do to encourage more of such investment.

Olin has a 48½ percent interest in a $150 million bauxite mining and alumina refining complex, known as FRIA, in what is now the independent Republic of Guinea. French, British, West German and Swiss aluminum producers also are in the joint venture which has now been in operation for about a year.

Mr. Osborne told the congressional group that American business does not ask for guarantees against normal business risks, which it takes in stride daily, but added that it cannot cope with political risks and should not be put in the middle of fluctuating national policies.

Olin's investments in Guinea are insured against expropriation under the International Cooperation Administration's investment guaranty program. Invaluable as this guaranty program has been in the past, Mr. Osborne said, it is increasingly clear that under it private business has had to "shoulder a very important share of the political risks

—*Continued on page 38*

**IN MEDICAL POST: Dr. Thomas Christie, new medical director of Wyeth International, Ltd., an affiliate of Wyeth Laboratories, Philadelphia. He succeeds Dr. Guillermo Angulo, who is retiring.**

## Dry Cleaning Chemicals: Latest Is From Pennsalt

In the wake of three major developments in the dry cleaning field, Pennsalt Chemicals Corporation has just introduced a "double action" solvent conditioner for use in professional as well as coin-operated dry cleaning units.

The new compound, trade-named "Pennsorb," is said to combine the adsorptive properties of activated carbon with the soil and fatty acid removal ability of sweetening agents. It is reported to be the first of a whole series of new Pennsalt filtration aids.

Introduction of "Pennsorb" follows these developments:

Early in the year, coin-operated dry cleaners passed their first commercial

—*Continued on page 79*

## Grace Places Itself In Auto Smog Battle

W. R. Grace & Co. has just taken the wraps off its latest research development: a new catalyst to control smog from automobile exhausts. When substituted for a standard muffler, a new device using the Grace catalyst "greatly reduces smog-causing hydrocarbons as well as carbon monoxide," the company discloses.

Prompted by recent legislation in California aimed at lessening smog and carbon monoxide in congested areas,

—*Continued on page 67*

## Tolylene Di-isocyanate Unit Of Mobay to Grow Further

Mobay Chemical Company, which will complete its current tolylene di-isocyanate expansion from 25 million pounds to 40 million pounds annually this month, is getting ready to add an additional 10 million pounds of capacity.

Construction of the new unit will begin immediately, and will cost $15 million. TDI capacity at the Mobay New Martinsville, W. Va., plant is expected to reach 50 million pounds annually on completion of the expansion this fall.

# *Association Meetings*

ACHEMA 1961, German chemical engineering exposition and congress, Frankfurt am Main, Germany, June 9-17.

Air Pollution Control Association, annual meeting, Commodore hotel, New York, June 11-15.

American Chemical Society, national meeting, Chicago, September 3-8.

**American Coke & Coal Chemicals Institute, eastern regional meeting, Westchester Country Club, Rye, N. Y., May 15-16.**

American Society for Testing Materials, annual meeting, Chalfonte-Haddon Hall, Atlantic City, N. J., June 25-30.

American Soybean Association, annual convention, Claypool hotel, Indianapolis, Inc., August 28-29.

American Tung Oil Association, annual meeting, Edgewater Gulf hotel, Edgewater Park, Miss., September 26-28.

Association of Food & Drug Officials of the United States, annual conference, Mayflower hotel, Washington, D. C., June 18-23.

Chemical Buyers Group of National Association of Purchasing Agents, annual meeting, Conrad Hilton hotel, Chicago, June 6.

Chemical Industries Exposition, Coliseum, New York, November 27-December 1.

**Chemical Market Research Association, annual meeting, Plaza hotel, New York, May 17-18.**

**Chemical Specialties Manufacturers Association, midyear meeting, Drake hotel, Chicago, May 15-17.**

Commercial Chemical Development Association, annual outing, Bedford Springs hotel, Bedford Springs, Pa., May 24-25.

Drug,Chemical & Allied Trades Association, annual meeting, Pocono Manor Inn, Pocono Manor, Pa., September 14-17.

Federation of Societies for Paint Technology, annual meeting, Shoreham and Sheraton-Park hotels, Washington, D. C., November 2-4.

**Flavoring Extract Manufacturers Association, annual meeting, Savoy-Hilton hotel, New York, May 14-17.**

Gordon Research Conferences, petroleum, Colby Junior College, New London, N. H.; chemistry of Coal, New Hampton School, New Hampton, N. H., lipide metabolism, Kimball Union Academy, Meriden, N. H., June 12-16.

International Congress on Pure & Applied Chemistry, Montreal, Canada, August 6-12.

Manufacturing Chemists' Association, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., June 8-10.

National Agricultural Chemicals Association, annual meeting, Homestead, Hot Springs, Va., October 29-November 1.

National Chemical Exposition, sponsored by the Chicago section of the American Chemical Society, International Amphitheater, Chicago, September 5-8.

National Paint, Varnish & Lacquer Association, annual meeting, Statler-Hilton hotel, Washington, D. C., October 30-November 1.

National Plant Food Institute, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., June 11-14.

Plastics Exposition, sponsored by the Society of the Plastics Industry, Coliseum, New York, June 5-9.

**Proprietary Association, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., May 14-17.**

Society of Chemical Industry, annual general meeting, Oxford, England, July 10-14.

Society of the Plastics Industry, national conference, Commodore hotel, New York, June 5-9.

Synthetic Organic Chemical Manufacturers Association, spring outing, Skytop Lodge, Skytop, Pa., May 22-24.

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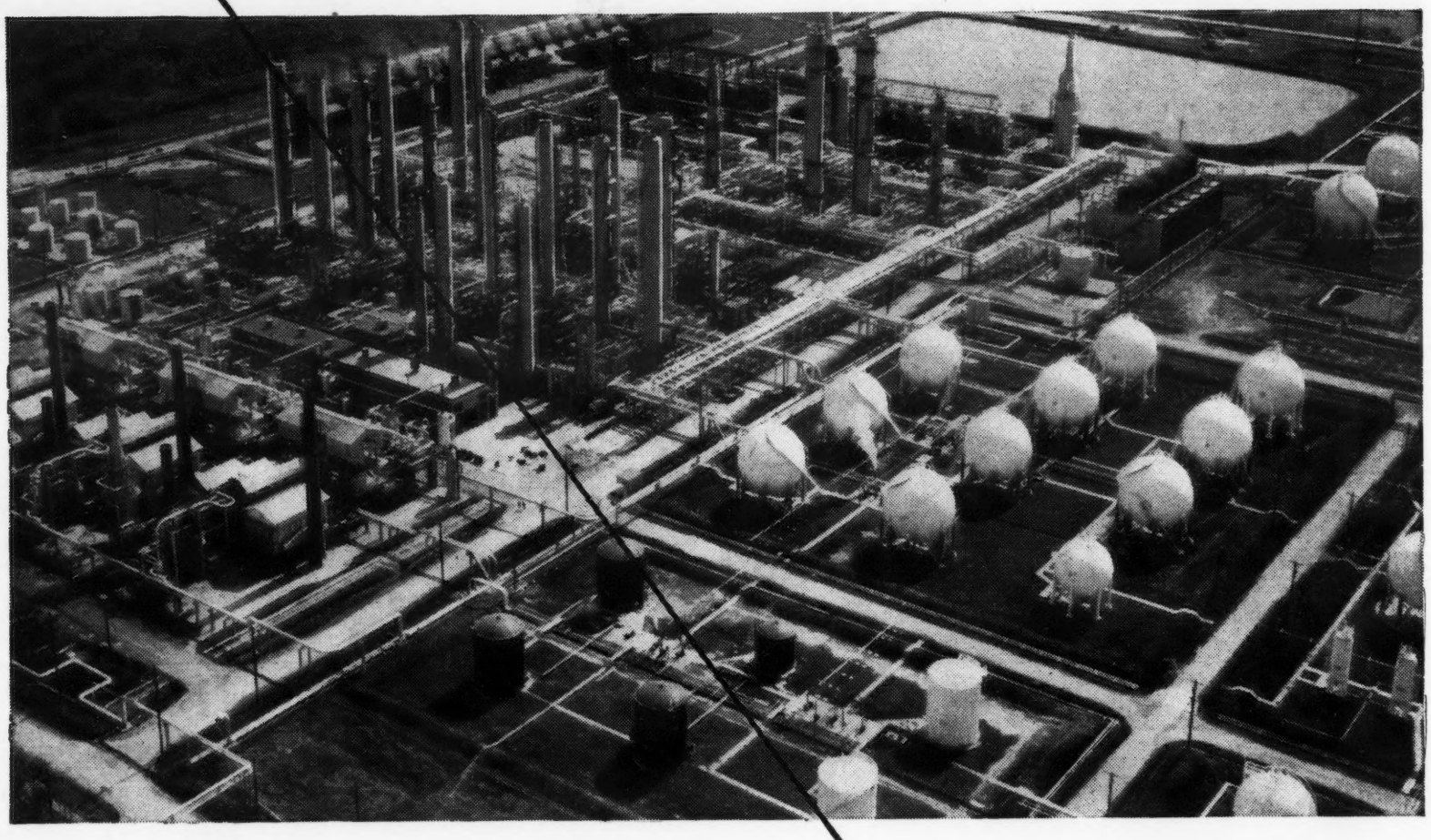

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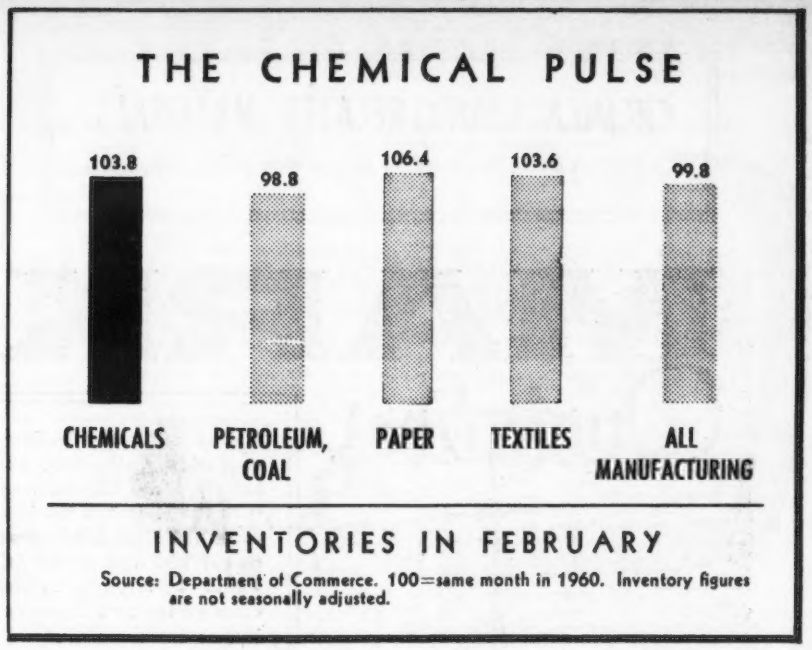


## Potentially Promotive Visit

President Kennedy is flying to Canada May 16 for a three-day stay in Ottawa. Mrs. Kennedy will accompany him. The visit will be an occasion of official-social nature. The President will confer with Prime Minister Diefenbaker on a number of matters. In that respect and socially, the visit will be a return of the one made to Washington by Mr. and Mrs. Diefenbaker three months earlier. The President will address a joint session of the two houses of the Canadian Parliament May 17.

There is more than a little expectation in this country that the President's visit—his first outside the United States since he took office—will do much to promote the improvement of relations between the two countries—popularly and governmentally—which has made some noticeable progress since his inauguration.

Reports—in large part, guesses—have it that the Cuban crisis will have a prominent, serious part in the Kennedy-Diefenbaker conversations and perhaps in the President's appearance before the Parliament. Canada's relations with Cuba have not been pared down as have those of the United States; but there has been a marked shift from the views of six months ago that "mutally beneficial economic relations with Cuba might ease tensions between Cubans and the peoples of the free West." There has not been any official sharing of the popular Canadian concern over possible implications that President Kennedy's statement that the United States would intervene if the nations of this hemisphere did not meet their San Jose commitments against communistic penetration included Canada. But, there is some feeling that the Prime Minister is likely to seek firm reassurance in that respect from the President.

There is some thought among people in the United States that the President and the Prime Minister will discuss the reported deal with Peiping covering Canada's supplying of something like $60 million worth of grain on short-term credit for the feeding of the millions of hungry—yes, starving—people in Red China. Some feel that this country missed a good bet on communistic dissension in that respect. There has been some suggesting that it should try to get some credit in the deal—for nothing other than reduction of current storage costs—by offering to give Canada some of the surplus grain accumulated here over the past decade.

It will be wisely useful if US national industrial and commercial organizations get adequately supplied with copies of major Canadian newspapers in order that their members may get properly acquainted with the reactions of Canadians to whatever may come out in President Kennedy's talks in that country. Canadian business has been growing quite progressively for more than a year. In securities trading, industries, oils, and base metals posted new highs in the first week of the current month, the pace of business being reported to have reached the highest levels in twenty-five months. US investors should study what the president of the Royal Bank of Canada had to say in an address some four months ago in direct contradiction of the widespread impression in Canada that the volume of US investment there was a threat to Canada's economic independence.

US businessmen can get a deal of useful information by reading the fortnightly publication of the Canadian Department of Trade and Commerce—*Foreign Trade*. In a more specific field, they might do well to find out what is the present status of the prediction by entomology experts in February that a grasshopper plague would infest more than half of the farm area of Saskatchewan this year.

## World Trade Promotion

Next week (May 21-27) will be World Trade Week—in the United States. In so proclaiming it, April 22, President Kennedy said: "I urge business, labor, agricultural, educational, and civic groups, as well as the people of the United States generally, to observe World Trade Week with gatherings, discussions, exhibits, ceremonies, and other appropriate activities designed to promote continuing awareness of the importance of world trade to our economy and to our relations with other nations." It is sincerely to be desired that his urging will motivate a very earnest nationwide response.

One notable response was the opening May 3 of the fifth annual US World Trade Fair in New York's Coliseum, with the governor of the state, noting that the US industry had "moved overseas in considerable strength in recent years," inviting foreign companies to locate in New York "to help make foreign trade a more intimate link between nations by transplanting industry across borders." The New York event was a trade fair for traders, being open to the public only during stated hours on specified days.

What the US Secretary of Commerce, speaking in Hanover May 6, told the Germans was not nearly so trade-bound—trading is a two-way relationship. He announced in outline a comprehensive program for increasing sales abroad to stop the pressure on the dollar. But, instead of increased buying abroad, as he put it, this country is trying to encourage tourism from other countries as one means of cutting down its payments deficit, visa-granting being simplified; but costs—he did not mention that — retain their excesses over those in other countries.

It is high time that somebody did something actually and beneficially contributive along the lines of the suggestion by a US senator in a discussion early in March about the need for a larger role for business in US foreign policy.

But, world trade is far more a matter of business than it is of government; although really promotive legislation— if you can get it—can be helpful—if business can take on the role it should have. If it does not want to run against the governmental policy on payments deficits, it need not buy abroad; it can keep the dollars at home by bartering. There is much to be relearned in that respect, bartering having become a "lost art." Records are not available on what may have been done in the way of its resteration by such enterprises as the Pan-American Barter Company in New York.

# Washington Talks It Over

### Drug Makers and Food Processors Know That More and More Government Supervision Is Due, But They May Not Realize Just How Fast It Is Coming Upon Them.

By Ralph L. Cherry
Washington Editor

Drug manufacturers and food processors are becoming reconciled to the fact that there is going to be more and more government supervision over their operations in coming years.

Consumer complaints are reaching the ears of Washington in greater volume all the time.

But what businessmen may not realize is that this could be coming on much faster than they had expected.

Food & Drug Administration—acting on orders from the Budget Bureau—is currently attempting to assess its budgetary needs, not over the immediate period ahead, but over the entire span of the Kennedy administration's first term—to June 30, 1966.

And one of their aims by that date will be to have enough inspectors on the payrolls to make it possible for every drug manufacturing establishment and every food processor to be inspected at least once a year. Inspections now average just about once every five years.

Records of the FDA's enforcement activities seem to substantiate arguments of officials that the number of serious law violations decrease with the increase in the number of inspectors around to enforce the law.

Recently FDA engaged in a multiple seizure action to break up what the agency terms "a nation-wide sea water swindle." This was the first time the multiple seizure authority had been invoked for several years, because there hasn't been any occasion to use the powers, says FDA.

Whether this is due to the increase in the number of inspectors hired in recent years is a matter of speculation, but officials feel that it is—at least in part.

A curious thing about this, however, is that in spite of the increase in the number of FDA inspectors today, there has not been a commensurate increase in the number of seizures or prosecutions of violations.

Officials have an answer to this. They explain it this way: (1) The training of new people is a drain on the old staff and subtracts from their productivity; (2) increased numbers of inspectors help management to prevent violations and thus cut off court actions, and (3) more emphasis is being put on education, and inspectors are the best source of this information.

## OPD'S BOOKSHELF

### Merck Manual

Some 100 authorities have contributed to this tenth edition of the MERCK MANUAL*, which will be off the presses in June. A feature of the current edition is the grouping of several hundred carefully selected prescriptions, including the most recent medical advances into a single chapter.

In addition, the manual covers over twenty new subjects not mentioned in previous editions. These include a wide variety of disorders—such as disturbances in inorganic metabolism, dental and oral defects, the malabsorption syndrome, group A streptococcal infections, toxoplasmosis, pulmonary granulomatoses and genetic metabolic anomalies.

THE MERCK MANUAL, Tenth Edition. 1,900 pages, Merck & Co., Rahway, N. J. Regular Edition, $7.50; Deluxe Edition, $9.75.

# CHEMICALS AND RELATED MATERIALS

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# Current MARKET Quotations

Unless otherwise indicated, listings are first-hand quotations prevailing, according to information and belief, May 12 on large lots, f.o.b. New York, with the lowest in the left-hand column and the highest in the right-hand column. The listings do not represent bid and asked prices nor a range over the week. Differences between high and low may be accounted for by differences in quantity, quality, locality, or individual suppliers' views. An index to the weekly market reports is to be found on page 4.

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USP, tanks, dlvd. E .. 100 lbs. 13.00 - —
Acetic anhydride, aluminum ret. dms., c.l., dlvd. E lb. .16½- —
aluminum ret. dms., l.c.l., dlvd E. lb. .18 - —
tanks, dlvd. E. lb. .14 - —
Acetic anhydride prices 1c. higher in West.
Acetoacetanilide, fib. dms., c.l., dlvd lb. .80 - —
fib dms. l.c.l., dlvd lb. .81 - —
Acetoacet-o-chloroanilide, fib. dms., c.l., dlvd lb. 1.35 - —
fib dms., l.c.l., dlvd lb. 1.36 - —
Acetoacet-o-toluidide, fib. dms., c.l., dlvd lb. .82 - —
fib dms., l.c.l, dlvd lb. .83 - —
Acetone, CP, dms., c.l., dlvd lb. 10½- —
dms., l.c.l., dlvd ..... lb. 12 - —
tanks, dlvd. ..... lb. .08 - —
Acetonitrile, dms., c.l., frt. alld lb. .34½- —
dms., l.c.l., frt. alld ..... lb. .36 - —
tanks, frt. alld ..... lb. .32 - —
Acetophenetidin, USP, powd., 200-lb. dms., 1,000 lbs., frt. alld lb. 1.20 - —
100-lb dms. 1,000 lbs., frt. alld. lb. 1.22 —
Acetophenone, cns. dms lb 42 1.30
Tech., dms., c.l., works ..... lb. .32½- —
dms., l.c.l., works ..... lb. .34 - —
tanks, works ..... lb. .30 - —
N-Acetyl-p-aminophenol, dms., t.l. (min 23.000 lbs.), frt. adjusted lb. 1.30 - —
dms., 1,000-lb. lots, same basis lb. 1.40 1.45
dms., 100-lb lots, same basis lb. 1.54 1.57
Acetylene black, imp., bgs., c.l., duty and freight extra lb. .20 —
cs., l.c.l., ex whse lb. .25½- .31
Acetylene tetrabromide, 16-dm. lots or more, f.o.b. works lb. .53 —
Acetylsalicylic acid, USP, cryst (20, 40 mesh), powd. (80 mesh), 250-lb dms., c.l., pt. of shipt lb. .56¼- —
USP 10% starch granulation, 12-50 mesh, white, 450-lb. dms., c.l., same basis lb. .56¼ —
(Pink and green granulations 5c. per lb higher.)
Freight equald. shipt. identical quantity over standard routes, from N.Y., Phila., Midland, Mich., Chicago and St. Louis.
Acetyltributyl citrate, tech., non-ret. dms. c.l., frt alld. E. of Denver lb. .35½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .36½- —
tanks, frt. alld. E. of Denver. lb. .33 - —
Acetyltriethyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .39½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .40½- —
tanks, frt. alld. E. of Denver lb. .37 - —

### ACIDS

**Acid quotations are listed individually. For example, prices on Acid, cresylic, may be found in the C's under Cresylic acid.**

Aconite root, bls. lb. .50 .55
Acrolein, tech., dms., c.l., works lb .36 —
dms., l.c.l., works ..... lb. .36¾ - —
tanks, works ..... lb. .31 —
Acrylamide, dms., t.l., f.o.b. works. lb. .58 —
dms., t.t.l., same basis lb. .60 —
Acrylic acid, glacial, dms., c.l., t.l., dlvd lb. .42½- —
dms., l.c.l., t.t.l., dlvd ..... lb. .43½- —
tanks, dlvd. ..... lb. .40 - —
tech., esterification, tanks, frt alld lb. .38 —
tech. polymerization, tanks, same basis lb. .38 - —
Acrylonitrile, dms., c.l., t.l., frt. equald lb. .26 - —
dms., l.c.l., t.t.l., frt. alld lb. .27 - —
tanks, frt. equald lb. .23 - —

## Abies Siberica Oil—Ammonium Bicarbonate

Adeps lanae (see lanolin).
Adipic acid, bgs., c.l., dlvd..... lb. .32¼- —
bgs., l.c.l., dlvd. ..... lb. .35 - —
Agar, USP, Kobe No. 1, strip, bls. lb. 3.00 - 3.10
powd., 30 mesh., fib. dms lb. 2.40 - 2.60
dl-Alanine, dms., 100-lbs. or more, f.o.b works lb 5.25 - —
dms. 1-99 lbs., same basis lb.10.00 - —
Aldol, 95%, dms., l.c.l., works lb. .28 - —
Aldrin, tech., fib. dms., c.l., t.l. dlvd lb. .99 - —
fib. dms., l.c.l., dlvd. lb. 1.04 - —

### ALCOHOLS

**Alcohol quotations are listed individually. For example, prices on Alcohol, furfuryl, may be found in the F's under Furfuryl alcohol.**

Aletris root, bgs lb 1.50 1.75
Algin (see Sodium alginate)
Alizarin (see 1,2-Dihydroxy anthraquinone).
Alkali blue dry, 250-lb. bbls., dlvd. E. of Rockies lb. 2.45 - —
Alkali blue prices 1c. higher W. of Rockies
Allethrin, 90%, dms., frt. alld lb.28.80 -28.90
Soln., 20%, dms., 200-2,000 lb. lots, frt. alld lb. 6.50 6.55
2½% dms frt alld. ..... lb. .95 - 1.10
Allspice oil (see Pimento oil).
Allyl alcohol, dms., c.l. dlvd..... lb. .32½- —
dms., t.c.l., dlvd. ..... lb. .34 - —
tanks, dlvd. ..... lb. .30 - —
Allyl bromide 55-lb cbys 5,005 lbs. or more, works lb. 1.50 - —
55-lb. cbys., 1,045 to 4,950 lbs. works lb. 1.55 - —
55-lb. cbys., 55 to 990 lbs. works. lb. 1.60 - —
Allyl chloride, dms., c.l., dlvd lb. .17½- —
dms., l.c.l., dlvd ..... lb. .19 - —
tanks, dlvd ..... lb. .15 - —
Allyl isothiocyanate (see Mustard Oil, syn.).
Almond oil, artif., bitter (see Benzaldehyde)
Almond oil nat., bitter, f.p.a., bots. lb 2.75 3.45
NF, bots. ..... lb 3.00 3.30
sweet, USP, cns., dms..... lb .60 - .70
Aloe, Cape, cs. ..... lb. 35 - .40
powd cs ..... lb 60 .65
Curacao, kgs. ..... lb. .75 - —
powd., kgs. ..... lb. .85 - —

## Abbreviations

### Used in OPD Market Quotations

| | | | | | |
|---|---|---|---|---|---|
| alld. | allowed | distr. | distributor | No. | number |
| amorph. | amorphous | djns. | demijohns | nom. | nominal |
| AMP | American melting point | dlvd. | delivered | o- | ortho |
| anhyd. | anhydrous | dms. | drums | ord. | ordinary |
| AOAC | Association of Official Agricultural Chemists | dom. | domestic | oz. | ounce |
| | | E. | east | p- | para |
| a.p.a. | available phosphoric acid | e.p. | end point | Pac. | Pacific |
| approx. | approximately | equald. | equalized | pf. | proof |
| artif. | artificial | exp. | expressed | phos. | phosphate |
| ASTM | American Society for Testing Materials | Ext. | external | photo. | photographic |
| | | F. | fahrenheit | pkgs. | packages |
| Atl. | Atlantic | ferment. | fermentation | powd. | powdered |
| Be. | Baume | f.f.a. | free fatty acid | precip. | precipitated |
| bbls. | barrels | f.f.c. | free from chlorine | prod. | producer |
| bgs. | bags | fib. | fiber | pt. | point |
| bls. | bales | f.o.b. | free on board | pulv. | pulverized |
| bots. | bottles | f.p.a. | free of prussic acid | purif. | purified |
| b.p. | boiling point | frt. | freight | redist. | redistilled |
| b.p.l. | bone phosphate of lime | gal. | gallon | refd. | refined |
| b.r. | boiling range | gran. | granular | refy. | refinery |
| bxs. | boxes | grd. | ground | reg. | regular. |
| C. | centigrade | i.&a. | iron and aluminum | resub. | resublimed |
| cbys. | carboys | i.b.p. | initial boiling point | ret. | returnable |
| CD | completely denatured | imp. | imported | SD | specially denatured |
| c.i.f. | cost, insurance, freight | incl. | included | s.d. | single distilled |
| cks. | casks | indust. | industrial | S E. | southeast |
| c.l. | carlots | kgs. | kegs | sec. | secondary |
| cns. | cans | l- | laevo | secs | seconds |
| coml. | commercial | lacq. | lacquer | s.g. | specific gravity |
| conc. | concentrated | lb. | pound | shipt. | shipment |
| CP | chemically pure | l.c.l. | less carlots | soln. | solution |
| cps. | centipoises | l.t.l. | less truckload | s.u. | standard unit |
| cryst. | crystalline | liq. | liquid | syn. | synthetic |
| cs | cases | mfrs. | manufacturers | tanks. | railroad tankcars |
| ctns. | cartons | m- | meta | tech. | technical |
| cyls. | cylinders | m.a.p. | mixed aniline point | tert- | tertiary |
| d- | dextro | min. | minimum | t.l. | truckloads |
| dbl. | double | m.p. | melting point | t.w. | tankwagons |
| denat. | denatured | N- | nitrogen | USP | U. S. Pharmacopoeia |
| dest-dist. | destructively—distilled | n- | normal | vis. | viscosity |
| dl- | dextro-laevo | nat | natural | VM&P | varnish makers & painters |
| dist. | distilled | neut | neutral | W. | west |
| | | NF | National Formulary | whse. | warehouse |
| | | NNR | New and Nonofficial Remedies | w.w. | water-white |

A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

Aloin, USP, bbls., dms., kgs... lb. 3.25 - 3.75
Alphanaphthol (see a-Naphthol).
Alphanaphthylamine (see a-Naphthylamine).
Alphanitronaphthalene (see a-Nitronaphthalene).
Alphapicoline (see a-Picoline).
Alphaterpinol (see a-Terpinol).
Alphatocopherol (see a-Tocopherol).
Alum, ammonium, gran., bgs., works 100 lbs. 4.30 - —
Lump, dms., works ..... 100 lbs. 5.05 - —
Powd., dms., works ..... 100 lbs. 5.20 - —
USP, burnt., dms ..... lb. .20 - .21
hydrous, dms. ..... lb. .07¾- .08
Alum, potassium, gran., bgs., works. 100 lbs. 4.55 - —
Lump, dms., works ..... 100 lbs. 5.30 - —
Powd., dms., works..... 100 lbs. 5.45 - —
USP, burnt., dms ..... lb. .20 - .21
USP, hydrous, dms ..... lb. .07¾- .08
Alum, potash-chrome, dms .... lb. .17 —
Alumina, calcined bgs. c.l., works. lb. .0535- —
bgs., l.c.l., works ..... lb. .056 .0835
Aluminum acetate, basic soln., 24%, bbls. l.c.l. works lb. .14 —
Aluminum chloride comi., anhyd., dms., c.l., works, frt equald lb. .16 - —
dms., l.c.l. works lb. .16½- —
cryst., dms. c.l. works 100 lbs.21.00 - —
dms., l.c.l. works 100 lbs.21 50 - —
Soln., 32° cbys., c.l., works lb .0495- —
cbys., l.c.l., works lb. .0570- .1095
tanks, works 100 lbs. 3.95 - —
NF, gran. dms. works lb. .31 .32
Aluminum fluoride tech., anhyd., bgs., c.l., works lb. .16¼ - —
bgs., l.c.l. works lb. .17¼ - .19¼
bulk, c.l. basis 80% lb. .14½- —
Aluminum fluoride in fib. dms. 0.35c per lb higher
Aluminum formate, basic soln., containers extra, c.l., works. 100 lbs.11.00 - —
containers extra, l.c.l. works. 100 lbs.11.50 - —
Aluminum hydrate, heavy, bgs., c.l., frt. equald lb. .0370- —
bgs., 20,000-40,000 lb. lots, same basis lb. .0395- —
bgs., 2,000-20,000 lb. lots, same basis lb. .0495- —
bulk, c.l., same basis lb. .0330- —
Light, bgs., c.l., t.l., works .... lb. .09½- —
bgs., t.l., to c.l., works..... lb. .10½- —
bgs., l.t.l., works ..... lb. .11½- —
Aluminum hydroxide, dried, USP XV, fib dms., works lb. .82½- —
fib dms., contract, works lb. .79½- —
Aluminum hydroxide, gel, pharmaceutical, 14-15% $Al_2O_3$, fib dms., works lb. .22 - —
9-9½% $Al_2O_3$, fib dms. works. lb. .19 - —
fib. dms. contract, works lb. .18 - —
Aluminum hydroxide, tech., powd., (see Aluminum hydrate).
Aluminum metal, 99½% + 30-lb ingots, 10,000-lb lots, frt. alld lb. .2810- —
50-lb. pigs, 10,000-lb lots, frt alld. lb. .26 - —
Aluminum oxide, amorphous (see Alumina, calcined).
Aluminum paste lining, extra-fine, dms lb. .71 - —
Standard grade, dms lb. .48½- —
Aluminum powder, lining, extra-fine, dms lb. 1.13 - —
Standard grade, dms lb. .83 - —
Aluminum paste and powder prices are f.o.b. shipping point. Add 1c per lb. for 100-lb. dm., 1½c per lb. for 50-lb dm., 3c. per lb. for 10 lb. can and 5c to 12c. per lb. for smaller containers. Deduct 1c per lb. for single shipment of 400 to 1,499 lbs. 2c for 1,500 to 4,999 lbs., 3c. for 5,000 to 29,999 lbs and 4c. for 30,000 lbs. or more. Where destination is within the continental U. S., a deduction equivalent to the lowest available common carrier transportation rate will be made from seller's invoice on orders of 200 lbs or more
Aluminum resinate, precip., 2.1% Al, dms lb. .45 - —
Aluminum stearate, dibasic, ctns., c.l lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Monobasic, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Tribasic ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Aluminum sulfate, coml., grd., bgs. c.l., works, frt. equald ton.41.00 - —
bulk, c.l., same basis ton.40.00 - —
lump, bgs., c.l., same basis ton.44.00 - —
iron-free, bgs., c.l., works, frt. equald 100 lbs. 3.80 - —
bgs., l.c.l., works, frt. equald. 100 lbs. 4.30 - 8.30
USP, gran., 400-lb. dm., works. lb. .30 - —
USP, powd., dms., works lb. .27 - —
Aluminum sulfate prices $1 per ton higher in the South.
Aluminum trihydrate, heavy (see Aluminum hydrate, heavy).
Ambergris, gray, bots ... oz. 6.50 -10.00
p-Aminoacetanilide, tech., paste, dms., frt. alld lb. 1.57 —
Aminoacetic acid, NF, bbls., frt. adjusted lb. 1.35 1.60
Aminoazotoluene base, bbls., 100% basis lb. 1.15 1.18
p-Aminobenzoic acid, tech., dry, dms., works lb 1.72 —
2-Amino-4-chlorophenol, tech., solid, dms., frt. alld lb. 2.15 3.85
p-Aminodiphenylamine, tech., solid, dms., frt. alld lb. 3.00 —
Aminoethyl ethanolamine, dms., c.l., dlvd lb. .475 - —
dms., l.c.l., dlvd lb. .49 - —
tanks, dlvd. ..... lb. .45 - —
2-Amino-2-methyl-1-propanol, dms., c.l., frt. alld lb. .44 - —
dms., l.c.l., frt. alld..... lb. .45 - —
tanks, frt. alld. ..... lb. .42 - —
m-Aminophenol, dist., dms., ton lots. lb 2.05 - —
dms., smaller lots. lbs. 2.50 - —
p-Aminophenol, dms., frt. alld. lb 1.15 - —
Aminophylline, USP, 100-lb. dm., frt. alld lb. 3.25 - —
p-Aminosalicylic acid, dms., 100 lbs. or more, frt. adjusted lb. 3.40 - —
Ammonia, anhyd., fertilizer, tanks, works, frt. equald E of Rockies ton.92.00 - —
refrigeration, tanks, works, frt equald, E. of Rockies ton.94.50 - —
Aqueous, 29.4%, tanks, works, anhyd. basis, E. of Rockies ton.95.00 - —
Ammoniacal liquor (see Ammonia, aqueous).
Ammoniac, sal., gray, bgs., c.l. works, frt. equald 100 lbs. 8.25 —
bgs. l.c.l., same basis 100 lbs. 8.65 -12.65
Ammoniac, sal., white (see Ammonium chloride, tech.)
Ammonium acetate, purif., dms lb. .40 - —
Ammonium benzoate, USP, 100-lb. dms., 1,000-lb. lots, works. lb. 1.90 - —
Ammonium biborate, gran., dms., c.l., works ton 325 - —
dms., ton lots, ex whse 100 lbs.22.86 - —
dms., smaller lots, ex whse 100 lbs.24.11 - —
Ammonium bicarbonate, dom., dms., c.l., works..100 lbs. 7.50 - —
dms., l.c.l., works.....100 lbs. 9.50 - —

Ammonium bichromate, dms., works lb. .42 .43
Ammonium bifluoride, dms., dlvd lb. .2145 .2245
Ammonium bromide, NF, gran., dms., c.l., t.l., frt. equald lb. .44 - —
dms., l.c.l., same basis lb. .46 - —
Ammonium carbonate, USP, lump, dms., c.l. lb. .15½ -
Ammonium chloride, white, tech., fine gran., bgs., c.l., works 100 lbs 6.00 —
bgs., l.c.l., works 100 lbs. 8.00 8.45
USP gran., 250-lb drm lb. .17¼ —
Ammonium citrate dibasic, 250-lb. dm f.o.b works lb .77 - —
Ammonium dichromate (see Ammonium bichromate)
Ammonium fluoride (see Ammonium bifluoride)
Ammonium gluconate, tech., 200-lb. dm., f.o.b. works E lb. .45 - —
Ammonium hydroxide (see Ammonia aqeous).
Ammonium iodide, NF, 25-lb. jar, f.o.b. works lb. 4.51 - —
Ammonium lauryl sulfate, dms., c.l., frt. alld lb. .20½ - —
dms., t.l.l. frt. alld lb .21½ - —
tanks, frt alld lb. .19½ - —
Ammonium lignin sulfonate, bgs., c.l. works 100 lbs. 3.25 —
bgs. l.c.l., works 100 lbs. 3.40 3.65
Ammonium linoleate, 80%, dms., works lb. .50 .55
Ammonium molybdate, CP, cryst., 400 lb dms. 15,000-lbs works, lb 1.22 - —
400-lb dms. 2,000-lb contracts, works lb 1.23 - —
400-lb dms. works lb 1.24 - —
Ammonium nitrate, dom., tertilizer grade 33.5% N, bgs., f.o.b works ton.67.00 - —
Ammonium nitrate, dom., with dolomite 20.5% N, bgs., c.l., Hopewell, Va ton.48.00 - —
Imp., Canadian, 33.5% N eastern, bgs., c.l., ship't point frt. equald to $3 ton base price ton.70.00 - —
Ammonium oxalate, tech., fine gran., 250-lb dm., f.o.b works E lb. .28½ -
Tech., powd., 200-lb dm., same basis lb .28½ -
Ammonium pentaborate, gran., bgs., c.l. works ton 193.00 - —
bgs., ton lots, ex whse 100 lbs.15.27 - —
bgs., smaller lots, ex whse 100 lbs.16.52 -18.52
Ammonium pentaborate, powder $1c per ton higher in bags
Ammonium persulfate, tech., dms., 10-ton lots or more, works lb. .18 —
dms., smaller lots, works lb. .20 .23
Ammonium phosphate, comi., bgs., c.l., works, frt equald lb. .09¼ - —
bgs., l.c.l., same basis lb. .10 - —
Dibasic, NF, V, bbls., dms lb. .46 - —
Dibasic, tech., bgs., c.l., works, frt. alld lb. .09¼ - —
Ammonium silicofluoride, dms., works lb. .12¼ .13¾
Ammonium sulfamate, bgs., c.l., t.l., works lb. .19 —
bgs., l.c.l., works lb. .20½ .27
Ammonium sulfate, standard granular, bulk, f.o.b works, base price ton.32.00 - —
Ammonium sulfate, standard gran., purif., c.l., 100-lb bgs., f.o.b works lb. .08½ -
Large granular, bulk, c.l., works ton.35.00 - —
bgs., c.l., works ton 40.00 - —
Tech., bulk, c.l., t.l., works ton 52.00 - —
bgs., c.l., t.l., works ton 56.00 - —
bgs., l.c.l., t.l.l., works 100 lbs 3.20 5.20
Ammonium sulfide, liq., 40-44% tanks, frt equald, 100% basis, ton.160.00 - —
Ammonium sulfocyanide, tech. (see Ammonium thiocyanate)
Ammonium thiocyanate, tech., cryst., dms., c.l., works lb. .20 - —
dms., l.c.l., works lb. .22 .26
Tech., soln., 50%, tanks, frt. equald., basis ammonium thiocyanate content lb. .17¼ -
Ammonium thioglycolate, comi., 55-gal. dms., ton lots, 100% basis lb 1.15 - —
d-Amphetamine hydrochloride, monobasic, dms lb.17.50 -23.50
dl-Amphetamine hydrochloride, dibasic dms lb 4.50 6.00
d-Amphetamine phosphate, 6lb dms., 100-lb lots lb.15.00 —
dl-Amphetamine phosphate, dms.lb 4.20 5.60
d-Amphetamine sulfate, 6lb. dms. lb.15.00 -17.00
dl-Amphetamine sulfate 6lb dms., lb 4.20 5.60
Amyl acetate ex fusel oil, tech., dist. from 125° to 150°C., dms. c.l., frt alld E. of Rockies lb .18½ - .19
dms., t.c.l., same basis lb. .20 .20½
tanks, same basis lb. .16 .16½
Amyl acetate ex pentane, reg., dms., c.l., dlvd lb. .19 —
dms., t.c.l., dlvd lb. .21½ - —
tanks, dlvd. lb. .16½ - —
tech., dms., c.l. dlvd. lb. .17 - —
dms., t.c.l., dlvd. lb. .18½ - —
tanks, dlvd lb. .14½ - —
Amyl acetate syn. oxo process, dms., c.l., dlvd lb. .19 —
dms., c.l. dlvd lb. .20½ - —
tanks, dlvd lb. .16½ - —
Amyl alcohol ex fusel oil (see Fusel oil refd).
Amyl alcohol, ferment, refd., 128°-132°C., dms., t.c.l. dlvd lb. .43½ - —
refd., ACS grade, dms., t.c.l., dlvd lb. .45½ - —
ex pentane, mixed amyls, dms., c.l., frt. alld lb. .19 - —
dms., t.c.l., frt. alld lb. .20½ - —
tanks, frt. alld. lb. .16½ - —
Amyl alcohol, primary, dms., c.l., frt. alld lb. .20¼ - —
dms., t.c.l. frt. alld lb. .21¾ - —
tanks, frt. alld lb. .17¾ - —
Sec-synthetic, dms., c.l., works, frt. alld lb. .19 - —
dms., t.c.l., same basis lb. .20½ - —
tanks, same basis lb. .17 - —
Tert-synthetic, dms., c.l., frt. alld. E lb. .17 - —
dms., t.c.l., frt. alld. E. lb. .18½ - —
tanks, frt. alld E. lb. .14½ - —
Amyl alcohol 1-pentanol (syn. normal), dms., c.l., works lb. .41½ - —
dms., t.c.l., works lb. .43 - —
tanks, works lb. .39½ - —
2-pentanol, dms., c.l., works lb. .65 - —
dms., t.c.l., works lb. .70 - —
tanks, works lb. .60 - —
Amyl n-butyrate, dms. lb. 1.00 1.25
Amyl cinnamic aldehyde, dms lb 1.70 2.20
p-tert Amyl phenol, dms., c.l., works. lb. .28 - —
dms., t.c.l., works lb. .29 - —
Amyl salicylate, cns, dms. lb. .71 - —
Amyris oil, dms lb. 1.50 - —
Anethol, tech., dms. lb. .80 .92
USP, cns., dms. lb. 1.05 —
Angelica root, bls lb. .50 1.00
Angelica root oil, bots lb.120.00 -140.00
Angelica seed oil, bots lb.120.00 -130.00
Aniline, dms., c.l., frt. alld lb. .20 —
dms., t.c.l., frt. alld. lb. .21 - —
tanks, frt alld lb. .18 - —
Aniline oil (see Aniline).

Aniline salt, dms., c.l., t.l., 20,000 lbs. min., frt. alld lb. .33 - —
dms., t.c.l., same basis lb. .35 - —
Anise oil, USP, dms lb. 1.90 - 3.00
Anise seed, Turkish, bgs. lb. .24 - —
Spanish, bgs. lb. .28 - —
Anisic aldehyde, dms lb. 1.50 - 2.20
o-Anisidine, dms., c.l., frt. alld lb. .80 - —
dms., t.c.l., same basis lb. .82 - —
tanks, same basis lb. .78 - —
p-Anisidine, dms., works lb. .97 - —
Anthracene, 90-95%, dms., c.l., t.l. f.o.b., works lb. .42½ - —
dms, t.c.l., minimum shipment 1,000 lbs., same basis lb. .45 - —
Anthranilic acid, 99% 150-lb. dms., dlvd lb 1.15 - —
Anthraquinone, 99.5% bgs., c.l., frt. alld lb. .70 - —
bbls., t.c.l., same basis lb. .73 - —
Electrical grade, bgs. t.c.l., same basis lb 1.10 —
Antimony butter (see Antimony trichloride).
Antimony metal, bulk, c.l., mines. lb. .32½ - —
cs., c.l., mines lb. .33 - —
Antimony oxide, bgs., c.l., frt. alld. lb. .26½ - .30
bgs., l.c.l., frt. alld. lb. .28 - .31½
Prices of antimony oxide are 2c. higher west of the Rockies.
Antimony sulfide, approx. 65%, bgs., 10,000-lb. lots, dlvd lb. .23 —
bgs., smaller lots, dlvd lb. .24 .26
Antimony trichloride, anhyd., solid, pails, c.l., works lb. .41 - —
pails, t.c.l., works lb. .43 - —
Antimony-potassium tartrate, tech., powd., 250-lb., dm., f.o.b. works, E lb. .69½ - —
USP, powd., 250-lb. dm., same basis lb. .74½ - —

Apomorphine hydrochloride, USP, bots., 25-oz. lots oz.35.60 - —
Apricot kernel oil, USP, dms. lb. .55 - .70
Arabic gum, amber sorts, 10 bgs. lb. .21 - .23
USP, powd., bbls. lb. .27 - .30
Areca nuts, powd., bbls. lb. .18 - .20
Arecoline hydrobromide, NF, bots., tins, 100 oz. or more oz. 6.00 - —
l-Arginine, free base, dms., 10-kilo lots or more kilo.90.00 - —
l-Arginine glutamate, dms., 10-kilo lots or more kilo.64.80 - —
l-Arginine monohydrochloride, dms., 10-kilo lots or more kilo.60.00 - —
Arnica flowers (true Montana), bls. lb. .75 - —
Aromatic petroleum solvents (see Solvent Naphtha petroleum, aromatic).
Arsenic, crude (95%), bulk, c.l., works lb. .016 - —
bbls., c.l., works lb. .0.31 - —
Arsenic trioxide, NF, powd., dms., 300-lbs., f.o.b. works lb. .48 - —
Arsenic, white, powd., bbls., c.l., works lb. .04½ - —
bbls., t.c.l. works lb. .06½ - .07¼
Arsenous acid, tech. (see Arsenic, white).
Arsenous acid, USP (see Arsenic trioxide).
Arylid maroons, deep shades, bbls. lb. 3.70 - —
Light shades, bbls. lb. 2.85 - —
Asafetida gum, cns lb. .36 - .40
Powd., bbls., dms. lb. .75 - .80

Asbestine (see Talc, fibrous, New York).
Asbestos, Canadian crude
6D, c.l. (30 tons), mines ton [illegible] —
7D, c.l. (30 tons), mines ton 75.00 —
7F, c.l. (30 tons), mines ton 71.00 —
7H, c.l. (30 tons), mines ton 67.00 —
7K, c.l. (30 tons), mines ton 50.00 —
7M, c.l. (30 tons), mines ton 44.00 —
7R, c.l. (30 tons), mines ton 43.00 —
7RF, c.l. (30 tons), mines ton 44.00 —
7T, c.l. (30 tons), mines ton 41.00 —
7TF, c.l. (30 tons), mines ton 44.00 —
Asbestos prices are in Canadian funds; t.c.l. lots $4 per ton higher
Ascorbic acid, USP, dms. 100-kilos kilo. 6.80 —
dms., less than 100-kilos kilo. 7.05 - 7.80
Ash, black (see Barium sulfide)
Asphalt, gilsonite, black jet, bgs., c.l., mines ton.43.00 - —
ex-whse, 5 tons or more, N. Y., N. J. ton.89.50 - —
select, brilliant black, 340°-360°F. fusing pt., bgs., c.l., mines, ton 46.00 - —
270°-295°F fusing pt., bgs., c.l., mines ton.43.00 - —
petroleum, cut-back, tanks, tankwagon, refy. gal. .09½ -
emulsion, tanks, tankwagon refy gal. 09½ -
steam-refd., 50-80 penetration, tanks, tankwagon, refy. ton.21.00 - —
85-300 penetration, tanks, tankwagon, refy ton.20.00 - —


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## Aspirin—Bone Black

Aspirin (see Acetylsalicylic Acid).
Atropine, NF, tins ..... oz. 6.50 - 7.50
Atropine sulfate USP. bots ... oz 5.25 5.75
Azelaic acid, bgs., c.l., dlvd. ... lb. .40 - —
bgs. ton lots same basis ... lb. .41 - —

## B

Bacitracin, sterile, over 500,000,000 units 50,000 units. .90 - —
non-sterile, over 500,000,000 units. 50,000 units. .65 - —
Balm of Gilead buds dried. bgs lb 1.25 1.35
Barberry root bark. bgs lb 1.00 1.10
Barbital. NF 100-lb dms., f.o.b. works lb 4.50 - —
Barbital sodium. NF 100-lb dms. lb 4.75 - —
Barium carbonate precip., bgs. c.l., works ton.111.50 - —
bgs. smaller lots, works ton.126.50 —
Barium chlorate. dms., works lb .32 .41
Barium chloride anhyd., bgs. c.l., works ton 176.00 —
bgs., l.c.l., works ton.196.00 - —
NF, cryst., dms., 400-lbs., works.lb .23 - —
Tech. cryst., bgs. c.l. works. 100 lbs 7.00 - —
bgs., l.c.l. works 100 lbs 8.00 - —
Barium chromate. bgs., frt. equald. lb. .38 - —
Barium dioxide (see Barium peroxide).
Barium hydrate, cryst., bgs., c.l., t.l., frt. equald ton.208.00 - —
bgs., l.c.l., t.l., frt equald ton.218.00 - —
Barium monohydrate, 99%, bgs., c.l., frt. equald 100 lbs.11.25 - —
bgs., l.c.l., frt. equald 100 lbs.11.75 - —
Barium monoxide (see Barium oxide).
Barium nitrate, bbls. c.l., t.l., dlvd lb. .16 - —
bbls., l.c.l., t.l., dlvd. ... lb. .17 - —
Barium oxide, grd. dms., c.l., t.l., frt equald ton275.00 - —
dms., l.c.l., t.l.l., frt. equald ton.285.00 - —
Barium peroxide, dms. frt. equald. lb .20 —
Barium stearate, ctns. c.l., frt. alld. lb. .41 - —
ctns., l.c.l. same basis ..... lb. .42 .46
Barium sulfate, tech. (see Barytes and blanc fixe).
Barium sulfate, X-ray, 100-lb. dm. lb. .19 - —
Barium sulfide, dms., c.l., works. ton.100.00 —
dms., l.c.l., works ton.110.00 —
Barytes, southern, off-color, bgs. mines ton 30.00 - —
95-75%, bgs., mines ton.30.00 - —
white, water-grd. paper bgs. c.l. St. Louis ton.60.00 60.25
paper bgs., ex whse., New York ton 84.85 —
Battery acid, cbys., c.l., works E. 100 lbs 2.35 —
cbys, l.c.l., works, E. ..... 100 lbs. 2.65 -10.95
Bauxite, bulk, mines ..... ton. 7.00 -10.00
Bay oil. NF. Puerto Rican. 50-55%, cns. lb. 4.00 - —
55-60%, cns. ..... lb. 4.00 - —
NF, West Indian, 50-55%, cns. dms. lb. 4.25 - 4.50
Bayberry wax, bgs. ..... lb. .65 - .70
Beeswax, crude, African, bgs. ... lb. .52 - .54
Brazilian, bgs. ..... lb. .56 - .57
Central American, bgs. ..... lb. .56 - .57
Chilean, bgs. ..... lb. .57 Nom.
Refd., USP, bleached white, bricks 100-lb. ctns lb. .67 .69
white, slabs, 100-lb. ctns lb. .66 - .68
yellow, bricks, 100-lb ctns lb 59 .61
yellow, slabs, 100-lb. ctns lb. 58 .60
Belladonna leaf, bls. ..... lb. .24 .26
Belladonna root, bls. ..... lb. .35 - .38
Bentonite, dom 200 mesh, bgs., c.l., mines ton.14.00 - —
imp. Italian, white, high gel., bgs., 5-ton lots, ex whse ton.95.20 - —
bgs., 1-ton lots, ex whse ton.99.00 - —
Imp. Italian, white, low gel., bgs., 5-ton lots, ex whse ton.93.40 - —
bgs., 1-ton lots ex whse ton.97 16 - —
Benzal chloride. cbys., works lb. .44 - —
Benzaldehyde, NF, dms. ..... lb. .74 - —
Tech., dms., c.l., t.l. ..... lb. .42 - —
dms., l.c.l. ..... lb. .44 - —
Benzene, pure or nitration, tanks, works:
Baton Rouge, La. ... gal. .34 - —
Bethlehem, Pa. ... gal. .34 - —
Birmingham district gal. .34 - —
Chicago district ... gal. .34 - —
Cleveland district ... gal. .34 - —
Geneva, Utah ..... gal. .34 —
Houston, Tex. ..... gal. .34 - .40
Johnstown, Pa. ..... gal. .34 —
Benzene, pure or nitration, tanks, works:
Lorain, Ohio ..... gal. .34 - —
Middletown, Ohio ..... gal. .34 - —
Mennequa, Colo. ..... gal. .34 - —
Philadelphia district... gal. .34 - —
Pittsburgh district ... gal. .34 - —
Port Arthur, Tex. .... gal. .34 - —
Benzene, pure or nitration, tanks, works:
St. Louis, Mo. District.gal. .34 - —
Sparrows Point Md. gal .34 —
Syracuse, N. Y. ..... gal. .34 - —
Terre Haute Ind. ... gal .34 - —
Youngstown, Ohio ... gal. .34 - —
Lackawanna N. Y. gal. .34 - —
Lone Star, Tex ... gal. .34 - —
Benzene hexachloride 25% and 99% gamma isomer (see Lindane).
Benzene hexachloride, tech., high gamma, bgs., c.l., t.l., consignment, dlvd. gamma-unit. .0075- —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit. .0065- —
Tech., low gamma, bgs., c.l., t.l., consignment, dlvd gamma-unit. .0075- —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit. .0056- —
Benzidine hydrochloride, bbls., c.l., frt. alld., 100% basis lb. 1.19 - —
bbls., l.c.l., same basis lb. 1.21 - —
Benzidine sulfate, tech., bbls., frt. alld., 100% basis lb 1.21 - —
Benzidine yellow, AAA, bbls., dlvd. lb. 2.20 - —
AAOT, bbls., dlvd. ..... lb. 2.55 - —
Lightfast, bbls., dlvd. ..... lb. 3.40 - —
Benzocaine, dms., 100-lbs., frt alld. lb. 3.25 - —
Benzoic acid, tech., dms., c.l., t.l., frt. alld lb. .25 .37
dms., l.t.l., same basis ..... lb. .29 - .41
tanks, same basis ..... lb. .21 - —
USP, bbls., dms., ton lots lb. .48 - —
bbls., dms., 1,000-lb lots lb. .50 —

### BENZOL

**Benzol quotations, both coaltar and petroleum, may be found under Benzene.**

Benzoin gum, Sumatra, cs. ... lb. .32 —
Benzophenone, dms ..... lb. 1.35 - 1.40
Benzotriazole, tech. dms., 1,000-lb lots, works lb. 1.95 - —
Benzotrichloride, cbys., 1,000-lb lots or more, frt. equald.lb. .21 - —
cbys., smaller lots, frt. equald lb. .23 - —
Benzoyl chloride, cbys., dms., c.l., works, frt. equald lb. .22 - —
cbys., l.c.l., same basis lb .23 - —
tanktrucks, dlvd Metropolitan area lb. .21 - —
Benzoyl peroxide, purif., fib. dms., 50 to 1,000-lb lots, works lb. .98 1.08
Benzyl acetate, f.f.c., cns., dms lb. .54 - —
Benzyl alcohol, NF, dms. ..... lb. .54 - —
Tech., dms., dlvd. lb. .47½- .65
Benzyl benzoate, USP, 40-lb. dms.lb. .62 - —
Benzyl chloride, tech., dms., c.l., f.o.b. frt. equald lb. .23 - —
dms., l.c.l., same basis .. lb .24 - —
tanktrucks, dlvd., Metropolitan area lb. .21 - —
Benzyl cinnamate, cns. ..... lb. 3.80 - 4.00
N-Benzyl-N,N-dimethylamine, 50 dms., frt. alld lb. 1.25 - —
12-49 dms., same basis ..... lb. 1.35 - —
1-11 dms., same basis ..... lb. 1.90 —
Benzyl formate, cns. ..... lb. 1.70 1.85
Benzyl isoeugenol, cns. ..... lb. 8.20 8.30
Benzyl propionate, bots ..... lb. 1.30 - 1.35
Benzyl salicylate, bots ..... lb. 1.50 - 1.85
Benzylidine acetone, bots ..... lb. 1.65 - 1.75
Benzylidine chloride (see Benzal chloride).
Berberine bisulfate. cns lb 56.50 - —
Berberine hydrochloride, bots lb.56.50 - —
Bergamot oil, nat. NF Italian, cns. lb.11.00 -12.00
Betagammapicoline (see b,g-Picoline).
Betahydroxynaphthoic acid (see b-Oxynaphthoic acid).
Betamethylnaphthalene (see Methylnaphthalene)
Betanaphthol (see b-Naphthol).
Betanaphthylamine (see b-Naphthylamine).
Betaoxynaphthoic acid (see b-Oxynaphthoic acid).
Betaphenylethylamine (see b-Phenylethylamine)
BHC (see Benzene hexachloride tech.).
Biotin cryst. bots gram.10.00 —
Biphenyl (see Diphenyl).
Birchtar oil crude cns. ..... lb 1.50 1.90
Rectified. cns ..... lb 1.75 2.00
Bismuth chloride. tars ..... lb 5.11 —
Bismuth hydroxide dms .. lb 4.60 4.65
Bismuth metal bxs ton lots lb 2.25 —
Bismuth nitrate, cryst., 200-lb. dm. lb. 2.25 - —
Bismuth oxychloride, 25-lb. dm., f.o.b. works lb. 4.92 - —
Bismuth subcarbonate, USP, 25-lb. dm., f.o.b., works lb. 3.70 - —
Bismuth subgallate, NF 200-lb dm. f.o.b works lb 3.98 - —
Bismuth subiodide fib dms lb 5.37 —
Bismuth subnitrate NF, 200-lb dm., f.o.b., works lb. 3.10 - —
Bismuth subsalicylate USP, 100-lb. dm., f.o.b. works lb. 4.15 - —
Bismuth trioxide 100-lb. dms., f.o.b works lb. 4.40 - —
Bismuth-ammonium citrate, USP, powd., jars lb. 4.22 - —
Bisphenol-A. bgs., c.l., t.l., single shipt., 70,000-lbs. or more, frt. alld lb. .30½- —
bgs. c.l., t.l. less than 70,000 lbs., same basis lb. .31 - —
bgs., l.c.l., same basis ..... lb. .32½- —
Blackberry root bark. bls. lb. .50 .55

### BLACK PIGMENTS

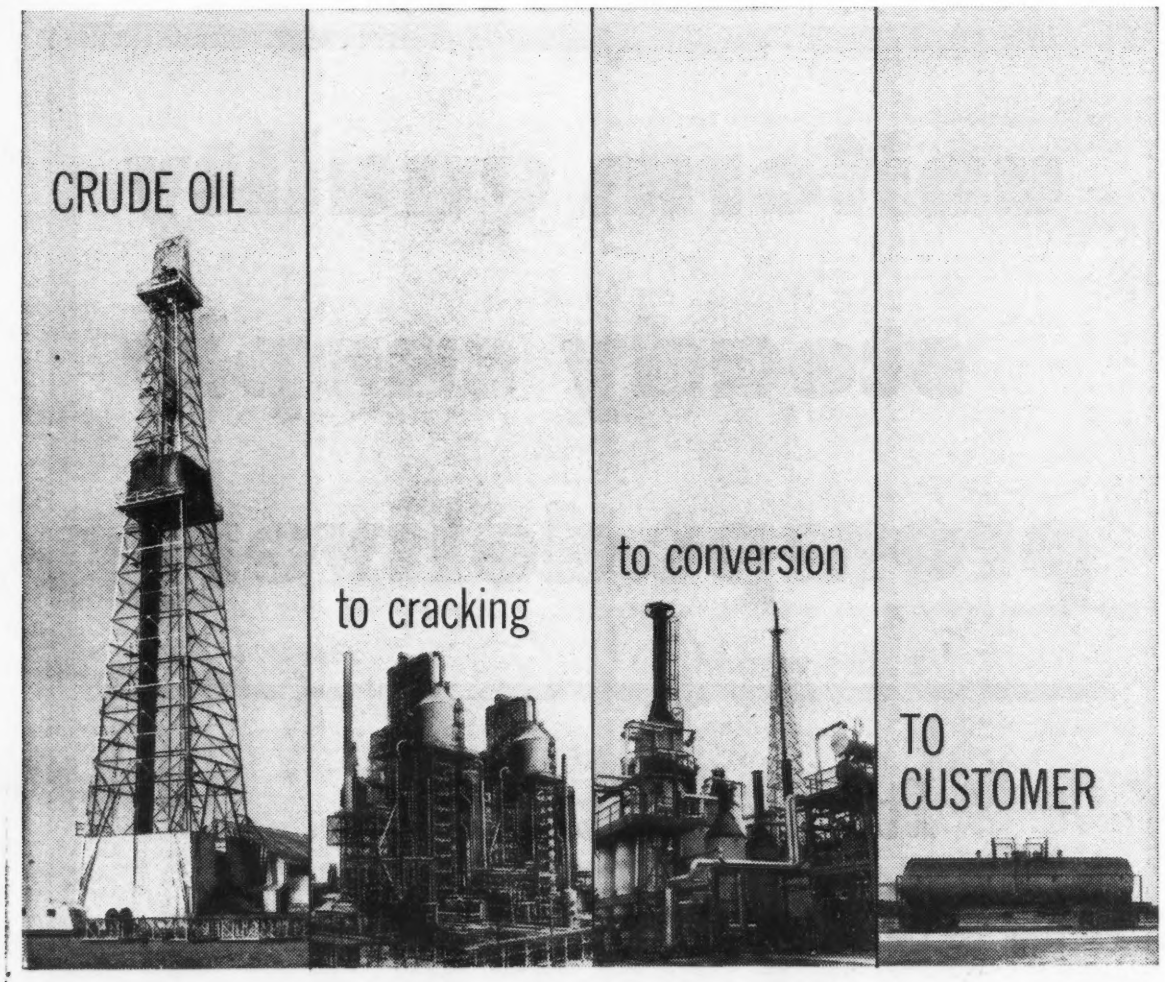
**Black pigment quotations are listed individually. For example, prices on Black, acetylene, may be found in the A's under Acetylene black.**

Blanc fixe. direct process, bgs., c.l., works ton.160.00 —
bgs., l.c.l., works .... ton.170.00 - —
bgs., l.c.l., New York whse ton.215.00 - —
Blood dried 16-16½% ammonia, bgs., New York unit-ton. 5.50 - —
Bloodroot, bls. ..... lb. .85 .90

### BLUE PIGMENTS

**Blue pigment quotations are listed individually. For example, prices on Blue, ultramarine, may be found in the U's under Ultramarine blue.**

Blue dyes (see Dyes)
Blue vitriol (see Copper sulfate)
Bois de rose oil. Brazilian, dms lb. 2.05 - —
Peruvian dms. lb. 1.65 - —
BON acid maroons pure, bbls lb 1.75 —
Resinated bbls lb 1.50 —
Bone black, dms., c.l., frt. alld lb. .1750- .2225
l.c.l., works lb. .1950- .2425
Pacific coast bone black prices 3¼c. per lb. higher.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At Enjay, careful, step-by-step control of quality starts when the crude leaves the ground and does not end until the finished chemical is delivered to your plant. Enjay Acetone comes to you *only* after it has passed strict specification tests using modern test methods, including gas chromatography. You'll find our specs among the highest in the industry:

| | |
|---|---|
| Purity (wt per cent) min. | 99.5 |
| Specific Gravity (20/20°C) min. | 0.791 |
| Specific Gravity (20/20°C) max. | 0.793 |
| Acidity, (as acetic acid—wt per cent) max. | 0.002 |
| Color (Pt-Co) max. | 5 |
| Water (wt per cent) max. | 0.5 |
| Non-volatile Matter (mg/100 ml) max. | 1 |
| Distillation (°C) | |
| Initial min. | 55.5 |
| Dry Point max. | 56.5 |
| Permanganate Test (hrs) min. | 2 |
| Appearance | Clear and Free of Suspended Matter |

Users of Enjay Acetone are assured of dependable supply from modern facilities; rapid delivery from strategically located supply points; and technical service that is unsurpassed in the industry. Let us show you how these assets can make a difference to you. Write Enjay, 15 W. 51st St., N.Y. 19, N.Y.

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Bonemeal, steamed, works, E. ton 100.00 - —
Bone phosphate, defluorinated of lime (see Defluorinated phosphate).
Bone phosphate, precip (see Calcium phosphate, tribasic).
Borax, tech., anhyd., 99½%, bgs., c.l., works ton 92.00 - —
bgs. ton lots, ex whse, New York or Chicago 100 lbs. 7.67 - —
bgs., smaller lots same basis 100 lbs. 8.91 -10.91
bulk, c.l., works ton 83.00 - —
Borax, tech., gran., decahydrate, 99½%, bgs., c.l., works. ton 50.00 - —
bgs. ton lots, ex whse, New York or Chicago 100 lbs. 5.31 - —
bgs. smaller lots same basis 100 lbs. 6.56 - 8.56
bulk, c.l., works ton 43.50 —
pentahydrate, 99½%, bgs., c.l., works ton 64.50 - —
bgs. ton lots, ex whse, New York or Chicago 100 lbs. 6.12 - —
bgs. smaller lots same basis 100 lbs. 7.37 - 9.37
bulk, c.l., works ton 58.00 —
USP powd., bgs. c.l., works ton 54.00 - —
bgs. ton lots, ex whse, New York or Chicago 100 lbs. 6.57 - —
bgs. smaller lots same basis. 100 lbs. 7.82 - 9.82
Bordeaux powder tribasic bgs., c.l., dlvd lb. .24 - —
bgs., l.c.l., same basis lb. .26 - —
Boric acid tech. anhyd. 99.9% bgs., c.l., works ton 335 00 - —
bgs ton lots, ex whse, New York or Chicago 100 lbs. 21.27 - —
bgs. smaller lots same basis 100 lbs. 22.52 -24.52
cryst. 99.9% bgs. c.l. works ton 163.50 —
bgs. ton lots, ex whse, New York or Chicago 100 lbs. 11.67 - —
bgs. smaller lots. same basis 100 lbs. 12.92 -14.92
Boric acid, tech. cryst., 99.9% dms. c.l., works ton 188.50 —
dms., ton lots, ex whse., New York or Chicago 100 lbs. 13.17 - —
dms., smaller lots, same basis 100 lbs. 14.42 - —
gran., 99.9%, bgs., c.l., works. ton 112.00 - —
bgs. ton lots. ex whse New York or Chicago 100 lbs. 8.78 - —
bgs smaller lots same basis 100 lbs. 10.03 -12.03
dms. c.l. works ton 137 00 —
dms. ton lots, ex whse. New York or Chicago 100 lbs. 10.29 - —
dms. smaller lots same basis 100 lbs. 11.54 - —
bulk c.l. works ton 106 00 - —
powd., bgs., ton lots. ex whse. New York or Chicago 100 lbs. 9.20 - —
bgs. smaller lots same basis 100 lbs. 10.45 -12.45
dms., ton lots, ex whse., New York or Chicago 100 lbs. 10.71 - —
dms., smaller lots, same basis 100 lbs. 11.96 - —
USP boric acid $25 per ton higher in bags.
Borneol, cns. lb 2.75 - —
Boron trichloride CP 1,800-lb. cyls., works lb 1.25 - —
100-lb cyls. works lb 1.70 - —
Boron trifluoride gas, cyls., t.l., works lb. 70 - —
cyls., l.t.l. works lb. 70 - —
Brimstone (see Sulfur).
Broenner's acid bbls lb 1.53 —
Bromine purif. cs. c.l., t.l., dlvd. E of Rockies lb. .32 - —
cs., l.c.l. same basis lb. .34 .39
Bromine, purif., ret. dms., c.l., t.l., dlvd. E. of Rockies lb. .31 - —
ret. dms. l.c.l., same basis lb. .31 .34
tanks, same basis lb. .21½ —
Bromochloromethane dms. c.l., frt. equald lb. 48 - —
dms., l.c.l., same basis lb. .50 - —
tanks, same basis lb 47 - —
Bromoform, pharmaceutical grade, 5-gal. cby., frt. equald lb. 1.93 - —
Bromstyrol, bots lb 5.25 5.35
Brucine, cns oz Nominal.
Brucine sulfate, NF, cns oz. 1.45 1.75
Buchu leaves, bbls lb. .60 - .65

**BROWN PIGMENTS**

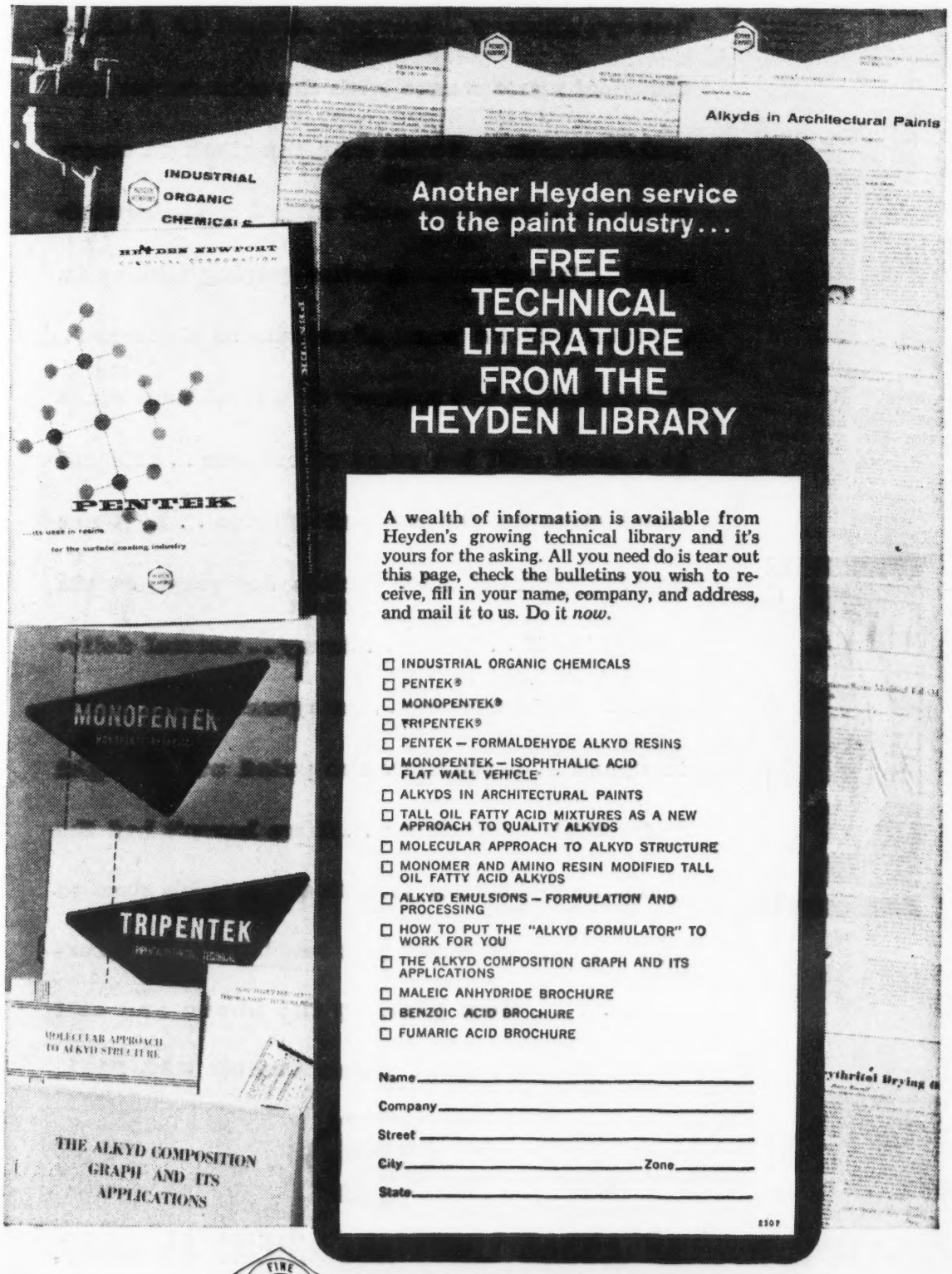
**Brown pigment quotations are listed individually. For example prices on Brown, iron oxide, may be found in the I's under Iron oxide brown.**

Butadiene refd cyls. c.l., refy lb .21 —
cyls., l.c.l., refy lb .22 —
tanks, dlvd lb. .12¾ —
Butene-1 tanks works lb .0625 —
Butene-2 tanks works lb. .0570 —
n-Butyl acetate ferment, dms., c.l., frt. alld lb. .17 —
dms., l.c.l., same basis lb. .18½ —
tanks, same basis lb. .14½ —
Syn. dms c.l. dlvd E lb. .17 —
dms., l.c.l. same basis lb. .18½ —
tanks, same basis lb. .14½ —
sec-Butyl acetate syn. dms., c.l., dlvd E lb. .14¾ —
dms., l.c.l. same basis lb. .16¼ —
tanks, same basis lb. .12¼ —
n-Butyl acrylate, dms. c.l. or t.l., straight or mixed frt. alld E lb. .37½ —
dms., l.t.l., same basis lb. .38½ —
tanks, same basis lb. .35 - —
n-Butyl alcohol ferment, dms., c.l., frt. alld lb. .18 —
dms., l.c.l. frt alld lb. .19¼ —
tanks frt. alld lb. .15½ —
Sec-synthetic dms. c.l., dlvd lb. .15 —
dms., l.c.l., dlvd lb. .16½ —
tanks dlvd lb. .12½ —
Tert-synthetic, dms., c.l., frt. alld., dlvd. E lb. .16 - —
dms., l.c.l., same basis lb. .17½ —
tanks, same basis lb. .13½ —
Butyl aldehyde (see Butyraldehyde).
Butyl chloride, dms. c.l., works lb. .37½ —
dms. l.c.l. works lb. .38¼ —
n-Butyl ether dms. c.l., works lb. .35¼ —
dms., l.c.l., works lb. .36 - —
tanks, works lb. .33¼ —
Butyl lactate dms. c.l. frt. alld E. Rockies lb. 42½ —
dms., l.c.l., same basis lb. .43½ —
tanks, same basis lb. 40 - —
Butyl laurate dms. works lb. .37½ —
Butyl methacrylate, dms., c.l., t.l., works lb. .55 —
dms. l.c.l. works lb. .55½ —
Butyl oleate refd. dms., l.c.l., works lb .32 —
Butyl phenylacetate dms lb 4.50 4.60
Butyl phthalate (see Dibutyl phthalate).
Butyl stearate, CP, dms., l.c.l., frt. alld. E. of Rockies lb. .27¼ .28½
tech., dms., c.l., same basis lb. .25¾ —
Butylamine (see Mono- Di- and Tributylamine).

tert-Butylamine, dms., c.l., t.l., f.o.b. works lb. .47 - —
dms., l.c.l., same basis lb. .47½ —
tc., t.l., same basis lb. .45 - —
Butylated hydroxyanisole, food grade, dms., dlvd. lb. 4.75 - —
6-tert-Butyl-m-cresol (see Mono-tert-butyl-m-cresol).
Butylated hydroxytoluene (see 2,6-Di-tert-butyl-p-cresol).
1,3-Butylene glycol, dms., c.l., t.l., dlvd lb. .20½ —
dms., l.c.l., t.l., f.o.b. works lb. .22 - —
tanks, dlvd lb. .18 - —
p-tert-Butylphenol, bgs., c.l., frt. alld lb. .25½ —
bgs., l.c.l., same basis lb. .26½ —
tanks, same basis lb. .23½ —
Butyraldehyde, dms., c.l., dlvd lb. .22 - —
dms., l.c.l., dlvd. lb. .23½ —
tanks, dlvd lb. .19½ —
Butyric acid, 99%, dms., c.l., frt. equald lb. .34 - —
dms., l.c.l., same basis lb. .34½ —
tanks, same basis lb. .32½ —
Butyric ether (see Ethyl butyrate).
Butyrolactone, dms., c.l., t.l., works. lb. .40 - —
dms., l.c.l., same basis lb .43 - —
n-Butyronitrile, dms., c.l., dlvd lb. .56½ —
dms., l.c.l., dlvd. lb. .57½ —
tanks, dlvd. lb. .54 —

## C

Cacao butter (see Cocoa butter).
Cadmium CP red dark shade, bbls., frt alld E of Rockies lb 5.55 - —
Light shade, bbls same basis lb 4.65 - —
Medium shade, bbls., same basis. lb. 5.30 - —
Cadmium CP red, medium, light shade, bbls., same basis. lb. 4.90 - —
Orange-red shade, bbls., same basis lb 4.30 - —
Yellow, all shades, bbls., frt. alld E. of Rockies lb 2.95 - —
Cadmium chloride, 400-lb dms., f.o.b. shipping point lb. 1.56½ - —
Cadmium iodide, 25-lb fib dms lb 6.75 7.00
Cadmium metal, ingots or sticks, ton lots, cs., dlvd lb. 1.60 - —
Cadmium nitrate, purif. cryst. 400-lb. dms., less than 5,000 lbs. f.o.b shipping point. lb. .94 - —
400-lb. dms., 5,000 lbs. or more same basis lb. .90 - —
Cadmium-mercury lithopone orange, deep shade bbls., frt. alld E of Rockies lb. 1.70 - —
Cadmium-mercury lithopone red, dark shade, bbls. same basis lb. 2.00 - —
Red, light shade bbls. same basis lb. 1.77 - —
Red, medium shade bbls. same basis lb. 1.92 - —
Red, medium light shade bbls. same basis lb. 1.83 - —
Red, maroon shade, bbls same basis lb. 2.08 - —
Cadmium-selenide lithopone maroon, bbls., frt alld E of Rockies lb 2.81 - —
Orange, bbls., same basis lb. 1.63 - —
Cadmium-selenide lithopone red, orange-red shade bbls. same basis lb 1.77 - —
Red, dark shade, bbls. same basis lb 2.61 - —
Red, light shade, bbls., same basis lb. 1.63 - —
Red, medium shade, bbls. same basis lb 2.28 - —
Red, medium-light shade bbls. same basis lb 2.05 —
Cadmium-selenide, lithopone, yellow, all shades bbls, frt alld E. of Rockies lb 1.24 - —
Caffeine NF citrated dms 100 lb lots or more lb 2 70 —
USP, syn., cryst., hydrous, dms., 100-lb. lots or more, frt. alld lb. 2.25 - —
hydrous, powd., 150-lb. dms., frt. alld lb. 2.25 - —
USP, syn., cryst., anhyd., powd., dms., 100-lb. lots or more, frt. alld lb. 2.40 - —
Cajuput oil, native, cns. lb 1 75 2.00
Redist. USP cns lb 1 90 2 10
Calamine USP dms. lb .34 —
Calamus oil bots lb 12.00 20.00
Calciferol, cryst., 10 kilo or more lots, works gram .54 —
1-10 kilo lots gram .55 —
Calciferol in edible oil (see Viosterol)
Calcium p-aminosalicylate trihydrate fib dms. 100 lbs or more frt adjusted lb 3.10 —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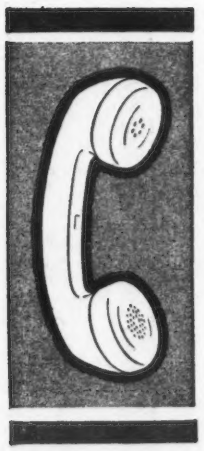
☐ ALKYD EMULSIONS — FORMULATION AND PROCESSING
☐ HOW TO PUT THE "ALKYD FORMULATOR" TO WORK FOR YOU
☐ THE ALKYD COMPOSITION GRAPH AND ITS APPLICATIONS
☐ MALEIC ANHYDRIDE BROCHURE
☐ BENZOIC ACID BROCHURE
☐ FUMARIC ACID BROCHURE
Name
Company
Street
City Zone
State
2107
FINE HEYDEN CHEMICALS
HEYDEN CHEMICAL DIVISION
Heyden Newport Chemical Corporation
342 Madison Avenue, New York 17, New York

## Calcium Bromide—Cashewnut Shell Liquid

**Calcium bromide**, NF, jars, 100 lbs. or more, lb. 1.10 - —
**Calcium carbide**, standard generator size, 600-lb dms., c.l., dlvd ton 149.00 - —
**Calcium carbonate**, nat., dry grd., air floated, 325 mesh, bgs., c.l. works ton 10.50 —
Chalk, whiting, 325 mesh, bgs., c.l., works ton 32.00 -34.00
water-grd., ½ to 10 microns, bgs., c.l., works ton 30.00 —
10 to 20 microns, bgs., c.l., works ton 17.00 -18.00
Precip., dense, bgs., c.l., works, ton 30.00 -38.50
bgs., l.c.l., works ton 45.00 53.50
medium, bgs., c.l., works ton 38.00 —
bgs., l.c.l., works ton 48.00 53.00
**Calcium carbonate**, surface treated, bgs., c.l., works ton 42.00 44.00
bgs., l.c.l., works ton 57.00 59.00
ultrafine, bgs., c.l., works ton 117.50 167.50
bgs., l.c.l., works ton 137.50 187.50
**Calcium chloride**, conc. flake or pellet, 94-97%, paper bgs., c.l., works, frt. equald. ton 39.30 - —
Flake, 77-80%, paper bgs., c.l., works, frt. equald ton 32.00 - —
Liquor, 40%, tanks, frt. equald. ton 12.50 - —
**Calcium chloride**, powd., 77% min., paper bgs., c.l., works, frt. equald ton 38.00 - —
Purif., gran., dms. lb. .27 —
**Calcium chloride**, solid, 73-75%, dms., c.l., frt. equald ton 30.50 - —
dms., l.c.l., works, frt. equald. ton 36.00 -73.00
USP, gran., dms. lb. .32 - —
**Calcium chromate**, bgs., dlvd lb. .37 - —
**Calcium cyclamate**, 100-lb. dms lb. 1.95 - —
**Calcium gluconate**, USP, AA grade, 100-lb. dm., ton lb. 73½- —
USP powd., 100-lb dm. ton lb. .66½- —
**Calcium hydride**, lump, dms. works, lb. 2.20 3.00
**Calcium hypochlorite**, high test, gran., 45-lb. cs., dlvd E. of Rockies cs. 27.50 - —
100-lb. dms., same basis dm. 39.50 - —
**Calcium hypophosphite**, dms. 1,000-lb. lots lb 1.28 - —
**Calcium iodide**, 25-lb. jars, works, lb. 4.27 - —
**Calcium lactate**, NF, dms., f.o.b. works lb. .43 - .46
**Calcium mandelate**, USP, 150-lb. dm., works lb. 3.25 - —
**Calcium naphthenate**, liq., 4% Ca., dms., frt. equald lb. .30 - —
**Calcium pantothenate**, USP, jars, 1 kilo or more kilo 35.00 - —
**Calcium para-aminosalicylate** (see Calcium p-aminosalicylate).
**Calcium phenosulfonate**, dms lb. 1.24 1.25
**Calcium phosphate**, dibasic, USP, dihydrate, bgs., c.l., frt. equald. 100 lbs. 8.25 - —
**Calcium phosphate**, dibasic, feed grade, 18½% P, bgs., c.l., t.l., Bonnie, Fla., frt. equald. ton 81.00 - —
bgs., c.l., t.l., f.o.b. Texas City works ton 75.50 - —
bgs., l.c.l. ton 96.00 - —
Feed grade, 21% P., bgs., c.l., t.l., frt. equald ton 97.65 - —
bgs., l.c.l., frt. equald ton 107.65 - —
Prices of calcium phosphate dibasic in bulk $3 per ton less than bgs., c.l., prices.
**Calcium phosphate**, monobasic, bgs., 10,000-lb. lots, frt. equald. 100 lbs. 7.45 - —
bgs., smaller lots, same basis, 100 lbs. 7.95 - —
Tribasic, NF, precip., bgs., c.l., works, frt. equald 100 lbs. 9.25 - —
bgs., l.c.l., frt. equald. 100 lbs. 10.00 - —
**Calcium propionate**, any quantity, dms., dlvd E. of Rockies, lb. .37 - —
Prices W. of Rockies 3c. per lb. more.
**Calcium phytate**, bgs., 50 lbs. or more, f.o.b. warehouse N. Y. lb. .39 - —
**Calcium resinate**, precip., dms., frt. alld., works lb. .45 - —
**Calcium silicate**, hydrated, bgs., c.l., works lb. .06 - —
bgs., l.c.l., works lb. .06½- —
**Calcium silicate**, paint grade (see Wollastonite).
**Calcium stearate**, ctns., c.l. lb. .39 - —
ctns., l.c.l. lb. .40 - .44
**Calomel**, NF, mild, powd., dms., 100-lbs., f.o.b. works lb. 4.32 - —
NF, mild, precip., dms., 100-lbs., f.o.b. works lb. 5.67 - —
**Camphene**, 46° m.p., dms. incl., c.l., works lb. .15 - —
dms. incl., l.c.l., same basis lb. .16½- —
tanks, same basis lb. .12½- —
**Camphene**, chlorinated, 67-69% (see Toxaphene).
**Camphor**, monobromated, NF, dms., kgs. lb. 3.63 - 3.70
**Camphor**, syn., tech., 1 bbl. or more, lb. .45 - —
USP, gran., powd., bbls., 1,000-lb. lots lb. .53 - —
bbls. smaller lots lb. .54 - —
tablets, ctns., 1,000-lb. lots, lb. .80 - —
ctns., 500-lb. lots lb. .81 - —
ctns., smaller lots lb. .82 - —
**Camphor oil**, sassafrassy, dms. lb. .35 - .55
White, dms. lb. .26 .50
**Cananga oil**, native, cns. lb. 5.00 6.50
Rectified, cns. lb. 7.25 -10.00
**Candelilla wax**, crude, bgs. lb. .57 - .58
Refd., pure, bgs lb. .62 - .63
Powdered Candelilla wax 20 to 100 mesh, 8c. higher.
**Cantharides**, Chinese, cs. lb. 1.00 - —
powd., bgs. lb. 1.15 - —
Russian, bgs. lb. 2.00 2.15
powd., bgs. lb. 2.15 2.30
**Capric acid**, dms. lb. .27¼- .29¾
tanks lb. .24¾- —
**Caprolactam**, monomer, bgs., c.l., t.l., f.o.b. works lb. .52 - —
bgs., l.c.l., l.t.l., same basis lb. .57 - —
tanks, same basis lb. .49 - —
**Caryl alcohol** 85% dms., c.l., t.l., works lb. .19 - —
dms., l.t.l., same basis lb. .19½- —
tanks, frt. equald. lb. .16½- —
Sec. 92-99% dms., c.l., f.o.b. works lb. .22 - —
dms. l.c.l., f.o.b. works lb. .23 - —
tanks, f.o.b. works lb. .19½- —
**Caprylic acid**, dms. lb. .27¼- .29¾
tanks lb. .24¾- —
**Capsicum** (see Pepper red).
**Capsicum oil** (see Capsicum oleoresin).
**Capsicum oleoresin**, NF, from dom. pepper, dms lb. 4.00 - —
NF, from African pepper, dms. lb. 4.50 - —
**Caraway oil**, NF, dms lb. 3.75 - —
**Caraway seed**, Danish, bgs. lb. .16 - —
Dutch, bgs. lb. .19 - —
**Carbazole** 97%, bbls, ton lots, works lb 1.05 - —
**Carbon black**, channel, rubber beads, bulk, c.l., works lb. .08 - —
bgs., c.l., works lb. .08½- —
bgs., l.c.l., works lb. .16¼- —
furnace, fast extruding, bgs., c.l., works lb. .08¾- —
ctns, l.c.l., whse lb. .13½- —
high abrasion, bulk, c.l., works, lb. .07¼- —
bgs., c.l., works lb. .07¾- —
bgs., l.c.l., dlvd. or whse. lb. .14½- —
high modulus, bgs., c.l., works lb. .08¼- —
ctns., l.c.l., whse. lb. .13 - —
semi-reinforcing, bgs., c.l., works, lb. .05¾- —
bgs., ctns., l.c.l., whse lb. .12½- —
pigment, high color beads, ctns., c.l., works lb. .78 - —
ctns., l.c.l., dlvd. or whse lb. .87 - —
medium color, uncompressed, bgs., c.l., works lb. .14 - —
bgs., l.c.l., dlvd. or whse. lb. .22½- —
**Carbon dioxide**, indust., wholesale, bulk, 30,000-2,999,999 lbs., dlvd. Metropolitan areas, E ton 60.00 -115.00
bulk, 3,000,000 lbs or more, dlvd Metropolitan areas, E ton 55.00 - —
Solid, bulk, wholesale works ton 85.00 - —
**Carbon disulfide**, 55-gal. dms., c.l., works, frt. equald to competitive points lb. .071 - —
55-gal. dms., l.c.l., same basis lb. .086 - .091
5-gal. dms., 30 dms to c.l., same basis lb. .131 —
5-gal. dms., less than 30 dms., same basis lb. .161 - —
tanks, f.o.b. works lb. .0450- —
**Carbon tetrachloride**, CP, consumers dms., c.l., frt. alld. lb. .12¾- —
dms., l.c.l., frt. alld. lb. .15¼- —
Tech., consumers dms., c.l., t.l., frt. alld lb. .11¾- —
dms., l.c.l., l.t.l., frt. alld lb. .14¼- —
tanks, frt. alld lb. .10¾- .11¼
**Carboxymethyl cellulose** (see CMC).
**Carbromal**, NF, dms., 100-lb. lots, works lb. 4.00 4.25
dms., smaller lots, works lb 4.10 4.75
**Cardamom oil**, NF, bots. lb. 40.00 -43.00
**Cardamom seed**, bleached "A" lb. 3.45 - —
Bleached "B" lb. 3.15 - —
Decorticated Alleppey, cs. lb. 2.70 - —
Guatemala, cs. lb. 2.10 - —
Green, Alleppey, bgs. lb. 2.10 - —
Ceylon, bgs. lb. 2.10 - —
**Carmine** No. 40, NF, bulk, 100-lb. lots or more, dlvd. lb. 16.80 - —
bulk, smaller lots, dlvd. lb. 16.90 -17.30
**Carnauba wax**, chalky, bgs., ton lots, lb. .65 Nom.
North Country, No. 2, crude, bgs., ton lots lb. .73 Nom.
refd., pure, ton lots lb. .76 - .77
**Carnauba wax**, North Country, No. 3, Ceara, crude, ton lots, lb. .59 - .61
North Country, No. 3, Parnahyba, crude, ton lots lb. .61 - .62
No. 3, refd., pure, bgs., ton lots, lb. .66 - .68
No. 1, Ceara, yellow, bgs., ton lots, lb. .82 - .83
Parnahyba, yellow, bgs., ton lots, lb. .85 - .86
Powdered carnauba wax, 20 to 100 mesh 8c. per lb higher
**Carotene**, tech., 1,350,000 A units per gram tins, 5-10 kilo lots, dlvd gram. .20½- —
in carrot oil, 5,000,000 to 8,000,000 A units per lb., dms., works million units. .12 - —
USP, microcrystalline in oil, 400,000 A units per gram., dms., dlvd million units. .144 - —
b-Carotene, in vegetable oil, sea,a solid suspension 400,000 A units per gram cns kilo. 57.60 - —
b-Carotene, liquid in vegetable oil, 500,000 A units per gram, cns kilo. 72.00 - —
Pure, cryst., 1,600,000 to 1,670,000 A units per gram, cns. kilo. 240.00 —
**Carvol**, bots. lb. 5.00 5.40
**Cascara sagrada bark**, bulk lb. .32 - —
**Casein**, dom., edible, acid precip., 30 mesh., bgs., 10,000-lb. lots or more, works lb. .56 - —
**Casein**, dom., edible, acid, precip., 80 mesh, bgs., 10,000-lb. lots or more, works lb. .64 - —
Imp., inedible acid-precip. grn., Argentine bgs., c.l. ex-dock Eastern seaports lb. .15¾- .16¼
Australian, bgs., c.l. same basis lb. .19 - .19¼
New Zealand, same basis lb. .24 .25
**Cashewnut shell liquid**, treated, dms., c.l., Newark, N.J lb. .24 - —
dms., ton lots, same basis lb. .25 - —
t.w., same basis lb. .22½- —


**hurry . . hurry . . hurry . . a call to Arkla**

**Chemical starts a race with the calendar on normal deliveries . . a race with the clock on emergencies . . customer can't afford a disappointment . . it may mean a dollar-gulping silence in a paper mill for want of caustic or chlorine . . flow reduction in a refinery or wasted man-hours in a steel mill for want of caustic . . critical water problems for want of chlorine . . he'll not be disappointed with Arkla delivery . . we'll guarantee it . . hurry . . hurry . . normal deliveries days in advance . . emergencies with hours to spare . . customers are pried out of tight spots with a telephone . . if we haven't had the pleasure of beating your deadline with time to spare . . check what you need for fast reference . . . . then pick up the phone and call us at our Shreveport phone number 422-2141.**



ARKLA

**ARKANSAS LOUISIANA CHEMICAL CORP.**

Plant: Pine Bluff, Arkansas, Sales Office: Slattery Bldg., Shreveport, Louisiana

CHLORINE — CAUSTIC SODA 50%—73% — HYDROCHLORIC ACID

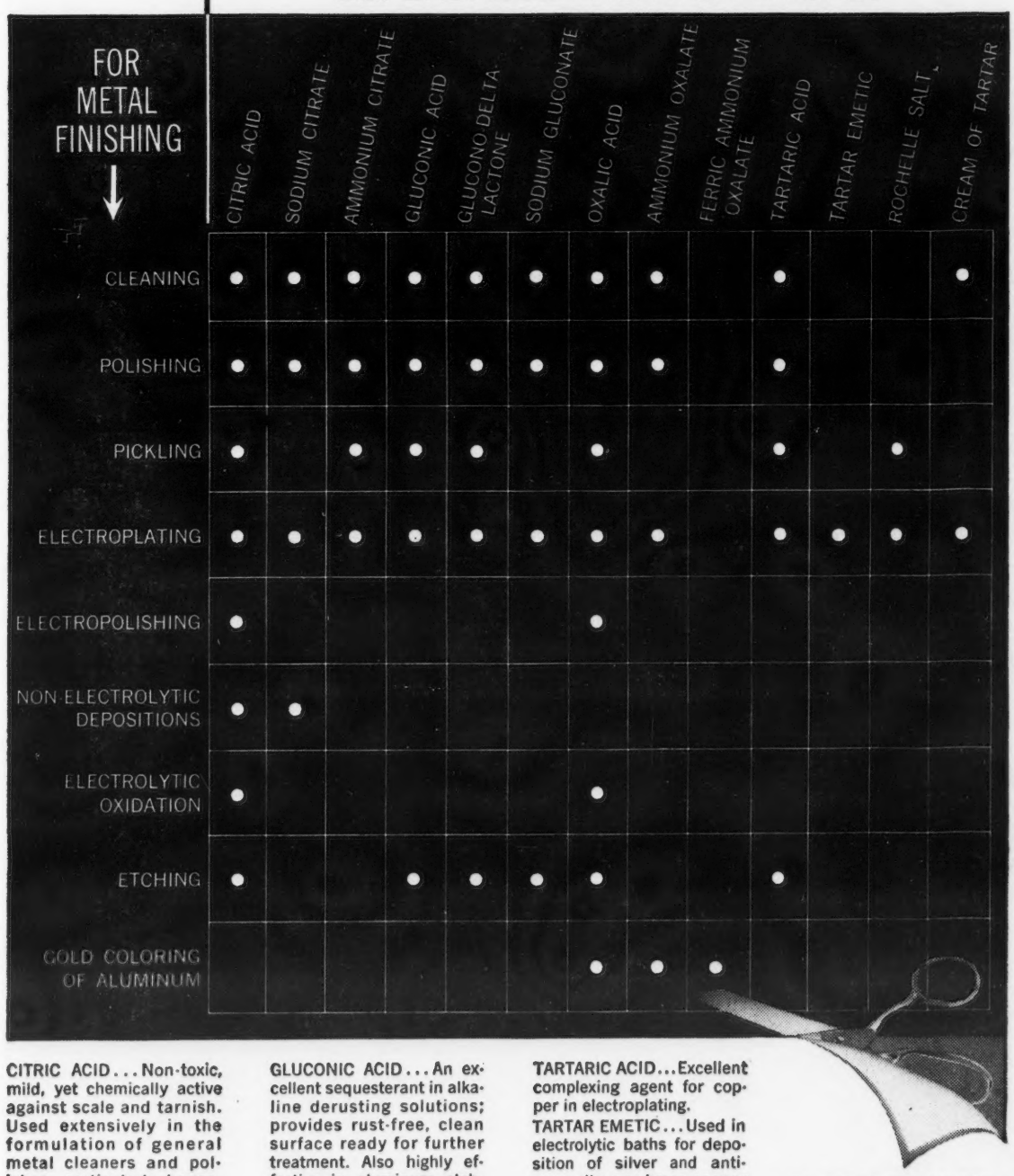
Cassella acid, dms., frt. alld., 100% basis lb. 1.44 - 1.75
Cassia oil, redist., USP, cns. lb. 7.50 - 9.00
Cassia, Padang, "A," bls. lb. .31 - —
"B," bls. lb. .30 - —
"C," bls. lb. .29 - —
Korintje "A," bls. lb. .31 - —
"B," bls. lb. .29 - —
"C," bls. lb. .27 - —
Castor oil, dom., blown, dms., c.l. lb. .2550- —
dms., l.c.l. lb. .2650- —
dehydrated, bodied, dms., c.l. lb. .2700- —
dms., l.c.l. lb. .2850- —
tanks lb. .2500- —
dehydrated, unbodied, dms., c.l. lb. .2500- —
dms., l.c.l. lb. .2660- —
tanks lb. .2360- —
hydrogenated, bgs., c.l. lb. .2475- —
bgs., ton lots lb. .2875- —
bgs., l.c.l., dlvd lb. .3075- —
Castor oil, dom., raw, No. 1, dms., c.l lb. .2200- —
dms., l.c.l. lb. .2300- —
tanks lb. .2000- —
No. 3, tech., dms., c.l. lb. .2125- —
dms., c.l., lb. .2225- —
tanks lb. .1925- —
Castor oil, dom., refd., deod., dms., c.l. lb. .2650- —
dms., l.c.l. lb. .2750- —
tanks lb. .2450- —
USP, dms., c.l. lb. .2350- —
dms., l.c.l lb. .2450- —
tanks lb. .2150- —
Imported, No. 1, Braz., tanks lb. .17¾- —
No. 3, tanks, same basis lb. .17¼- —
Sulfonated, 50%, dms., works lb. .15 .15½
75%, dms. works lb. .19 - .19½
Castor oil acids, dehydrated, dms. lb. .41¼- .43¼
Split, dms. lb. .33¾- .34¾
Castor pomace, bgs., c.l., works ton 35.00 —
Castoreum nat., cns. lb 5.25 - —
Syn., cns lb 9.00 - —
Catechol, CP, cryst., fib., dms., works lb 2.17½ —
Resub, dms, works lb 4.29½ —
Catnip leaves, Southern bls lb. Nominal.
Caustic potash (see Potash caustic)
Caustic soda (see Soda caustic)
Cedarleaf oil USP XIII cns., dms. lb. 4.00 - 5.00
Cedarwood oil cns., dms. lb. 1.00 - —
Celery seed oil lb. 11.50 - —
Celery seed, French, bgs. lb. .36 - —
Indian, bgs. lb. .21 - —
Cellulose acetate, flake, powd., bgs., t.l., dlvd E lb. .36 - .51
Cellulose acetate-butyrate, powd., 17% butyryl content, bgs., dlvd E lb. .545 - .555
27% butyryl content, bgs, dlvd, E lb. .595 .605
38% butyryl content, bgs., dlvd, E lb. .545 - .555
Cellulose acetate-butyrate, 38% butyryl content, half-second, bgs., dlvd, E lb. .545 - .555
50% butyryl content, bgs, dlvd, E lb. .585 - .595
Cellulose gum, methyl (see Methyl Cellulose)
Cellulose gum, pure, high vis., bgs., 23,000-lb lots or more works, frt alld lb. .57 - —
ogs, smaller lots, same basis lb. .59 - —
standard, low or medium vis., bgs., c.l., t.l., frt, alld, E lb. .57 - —
standard, low or medium vis., bgs., ton, frt, alld, E lb. .59 - —
(Cellulose gum prices 1c. per lb. higher in west.)
Cerium hydrate 74% CeO, fib, dms., 100-lb. lots or more lb. 1.40 - —
77% CeO, fib dms., 100-lb. lots or more lb. 1.74 - —
Cerium oxalate (see Rare earth oxalate)
Cerium oxide, optical grade, bgs., 50-lb lots or more, dlvd, lb. 1.85 - 1.90
bgs., smaller lots, dlvd. lb 2.15 - —
Cetyl alcohol NF fib cns., c.l., t.l., dlvd E lb. .41½- —
fib cns., l.c.l. same basis lb. .43½- —
tanks same basis lb. .39 —
Extra, cns, c.l., t.l., dlvd, E lb. .48½- —
fib cns, l.c.l., same basis lb. .50½- —
tanks, same basis lb. .46 - —
Chalk (see Calcium carbonate)
Chamomile flowers, Hungarian, lb. 1.00 - 1.25
Roman, cs. lb. 1.75 - 2.00
Chamomile oil, blue Hungarian, bots lb. 350.00 - —
Charcoal, activated NF, fib, dms., c.l., works lb. .34 - —
fib, dms., 5-ton lots, works lb. .35 - .35½
fib dms., smaller lots, works lb. .36 - .59
Charcoal, black (see Charcoal, activated)
Charcoal, bone (see Bone black).
Charcoal hardwood, lump, bulk, c.l., f.o.b. plant ton. 55.00 - —
briquets, bulk, c.l., f.o.b. plant ton. 80.00 - —
5-lb. paper bgs., c.l., same basis ton. 106.00 - —
20-lb. paper bgs., c.l., f.o.b. plant, ton. 90.00 - —
40-lb paper bgs, c.l., same basis ton. 86.00 - —
Chenopodium oil, NF, cns lb. 4.75 - 5.00
Chicago acid, paste, bbls., frt. alld. lb. 3.21 - —
Chinawood oil (see Tung oil).
Chloral tech, 94% min, dms., c.l., works lb. .23 - —
dms., l.c.l., works lb. .24 - —
tanks, multiple units, 5 cars, dms., l.c.l., works lb. .21 - —
Chloral hydrate, USP jars, 1,000-lb. lots lb. 1.00 - —
jars, 500-lb lots lb. 1.03 - —
jars, 100-lb. lots or less lb. 1.05 - —
Chlordan, agricultural, dms., c.l., frt. alld lb. .65 - —
dms, l.c.l. 5,000-10,000-lb. lots, frt alld lb. 66 - —
clarified, dms., c.l., frt. alld lb. .69 - —
dms, l.c.l. 5,000-10,000-lb. lots, frt alld lb .70 - —
Chlorinated paraffin, 40%, dms., c.l., frt. alld lb. .15 - —
dms, l.c.l. 10 dms or more, same basis lb. .16 - —
70%, dms., c.l., same basis lb. .18½- —
dms, l.c.l. 10 dms or more, same basis lb. .19½- —
Chlorinated rubber, 5, 10, 20 cps., ctns, c.l. works lb. 60 —
ctns., l.c.l. works lb. .61 - —
125 cps. ctns, c.l., works lb. .70 - —
300 cps. ctns., c.l., works lb. .80 - —
Chlorine, liq., cyls, c.l., works, frt equald lb. .11 —
cyls., l.c.l., Metropolitan area, same basis lb. .12½- .13¾
tanks, single units, works, frt equald 100 lbs 3.25 - —
tanks, multiple units, 5 cars, works, frt, equald, same basis 100 lbs. 4.15 - —
tanks, multiple units, 4 cars, same basis 100 lbs. 4.35 - —
tanks, multiple units, 2 cars, same basis 100 lbs. 5.35 - 5.85
tanks, multiple units, 1 car same basis 100 lbs. 6.25 - 7.25

Chloroacetic acid, mono, flake, 99%, purif, dms., c.l lb. .23½- .25¼
dms., l.c.l. lb. .24½- —
tech., flake, 96-97%, dms., c.l., frt. equald lb. .19 - —
dms., l.c.l., frt equald lb. .20 - —
2-Chloro-4-aminotoluene, tech., liq., dms., frt. alld lb. 1.03 - —
4-Chloro-2-aminotoluene, fused, bbls. lb. 1.38 - —
6-Chloro-2-aminotoluene, tech., liq., dms. frt. alld lb. .66 - —
m-Chloroaniline, dms. c.l., frt. alld. lb. .75 - —
dms., l.c.l., same basis lb. .77 - —
tanks, same basis lb. .73 - —
o-Chloroaniline, dms., c.l., frt. alld lb. .52 - —
dms., l.c.l., same basis lb. .54 - —
tanks, same basis lb. .50 - —
p-Chloroaniline, dms., c.l., frt. alld. lb. .77 - —
dms., l.c.l., same basis lb. .79 - —
o-Chlorobenzaldehyde, dms., t.l., works lb .1.05 - —
dms., t.t.l., same basis lb. 1.20 - —
p-Chlorobenzaldehyde, dms., t.c.l., works lb. 1.95 - —
o-Chlorobenzoic acid, fib dms., t.l., works lb. 1.10 - —
fib. dms., smaller lots, works lb. 1.25 - —
p-Chlorobenzoic acid, fib dms., 2,000-lbs. or more, works. lb. 2.25 - —
fib. dms., less than 2,000-lbs., same basis lb. 2.30 - —
Chloroform, tech., dms. c.l., dlvd. E lb. .18 - —
dms., l.c.l., same basis lb. .19 - —
tanks, same basis lb. .17 - —
USP, dms., c.l., dlvd lb. .27 - —
dms., l.c.l., dlvd. lb. .30 - —
tanks, minimum 4,000 gals. dlvd. lb. .25 - —

2-Chloro-4-nitroaniline, paste, dlvd. E., 100% basis lb. .90 - —
Powd., dlvd. E., 100% basis lb. 1.00 - —
4-Chloro-2-nitroaniline, powd., dlvd. E lb. .86 - —
4-Chloro-2-nitrophenol, tech., paste, dms. frt. alld lb. .75 - —
4-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld lb. .99 - —
o-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld lb. .25 - —
o-Chlorophenol, dms., c.l., frt. equald lb. .37 - —
dms., l.c.l., same basis lb. .38 - —
p-Chlorophenol, dms., c.l., frt equald lb .37 - —
dms. l.c.l., same basis lb. .38 - —
Chloropicrin, coml., cyls., 180 lbs., frt alld lb 1.07 - —
cyls., 100 lbs., same basis lb 1.08 - —
cyls., 50 lbs., same basis lb 1.14 - —
Chlorosulfonic acid, dms., c.l., frt. equald lb .0465- —
dms., l.c.l. frt equald lb. .0515- —
tanks, frt equald lb. .0415- —
Chlorosulfonic acid, in stainless steel dms ½c. per lb higher
o-Chlorotoluene, tech, dms., t.l., works lb. .37 - —
dms., l.c.l., t.t.l., same basis lb. .38 - —
Choline bitartrate, 100-lb. dms., frt. equald lb. 1.25 - —
Choline chloride, 100-lb dms., frt. equald lb. 1.25 - —

Choline dihydrogen citrate, 100-lb dms. frt equald lb. 1.25 - —
Chrome green CP dark, light medium blue content, 1 15%, bbls dlvd E of Rockies. lb. .43 - —
blue content 16-30%, bbls., same basis lb. .44 - —
Chrome green, medium blue content, 41-45%, bbls., same basis lb. .44 - —
blue content 45-49%, bbls., same basis lb. .45 - —
reduced color 25%, bbls., same basis lb. .20 - —
Chrome green prices 1c higher W of Rockies
Chrome orange CP bbls. dlvd E of Rockies lb. .35 - —
Chrome orange prices 1c higher W of Rockies
Chrome yellow CP bbls. dlvd E. of Rockies lb .35 - —
Chrome yellow price 1c. higher W of Rockies
Chromic acid, 99¾%, dms., c.l., works, frt. equald lb. .29½ - —
dms., t.c.l., dlvd, N. Y Metropolitan area lb. .30 .31
Chromic acid, NF (see Chromium trioxide)
Chromium acetate, soln., 7½%, dms., 500-2,000-lb lots, works. lb. .10 —
Chromium fluoride bbls., works lb. .51 - .52


DEPENDABLE PFIZER CHEMICALS




CITRIC ACID... Non-toxic, mild, yet chemically active against scale and tarnish. Used extensively in the formulation of general metal cleaners and polishes, particularly household products.

SODIUM CITRATE... A preferred ingredient in electroless nickel baths, resulting in a brighter plate. Also finds wide use in electroplating processes.

AMMONIUM CITRATE... Especially useful for the removal of rust in near neutral solutions. Extremely mild and safe to handle.

GLUCONIC ACID... An excellent sequesterant in alkaline derusting solutions; provides rust-free, clean surface ready for further treatment. Also highly effective in aluminum etching and paint stripping compounds.

OXALIC ACID... The most effective chemical for use in automobile radiator cleaners. Also finds wide use in electropolishing and as an ingredient in general metal cleaners.

FERRIC AMMONIUM OXALATE... Used extensively in the production of light-fast gold-colored aluminum.

TARTARIC ACID... Excellent complexing agent for copper in electroplating.

TARTAR EMETIC... Used in electrolytic baths for deposition of silver and antimony alloys on brass, copper and steel surfaces.

ROCHELLE SALT... Increases efficiency and yields finer-grain deposit in alkaline copperplating.

CREAM OF TARTAR... An excellent additive for brass and aluminum cleaning compounds. Its crystalline structure acts as an effective abrasive in paste polishes. Chemically active against tarnish.

For further details write to Chas. Pfizer & Co., Inc., Chemical Division, Brooklyn 6, New York.

Science for the world's well-being

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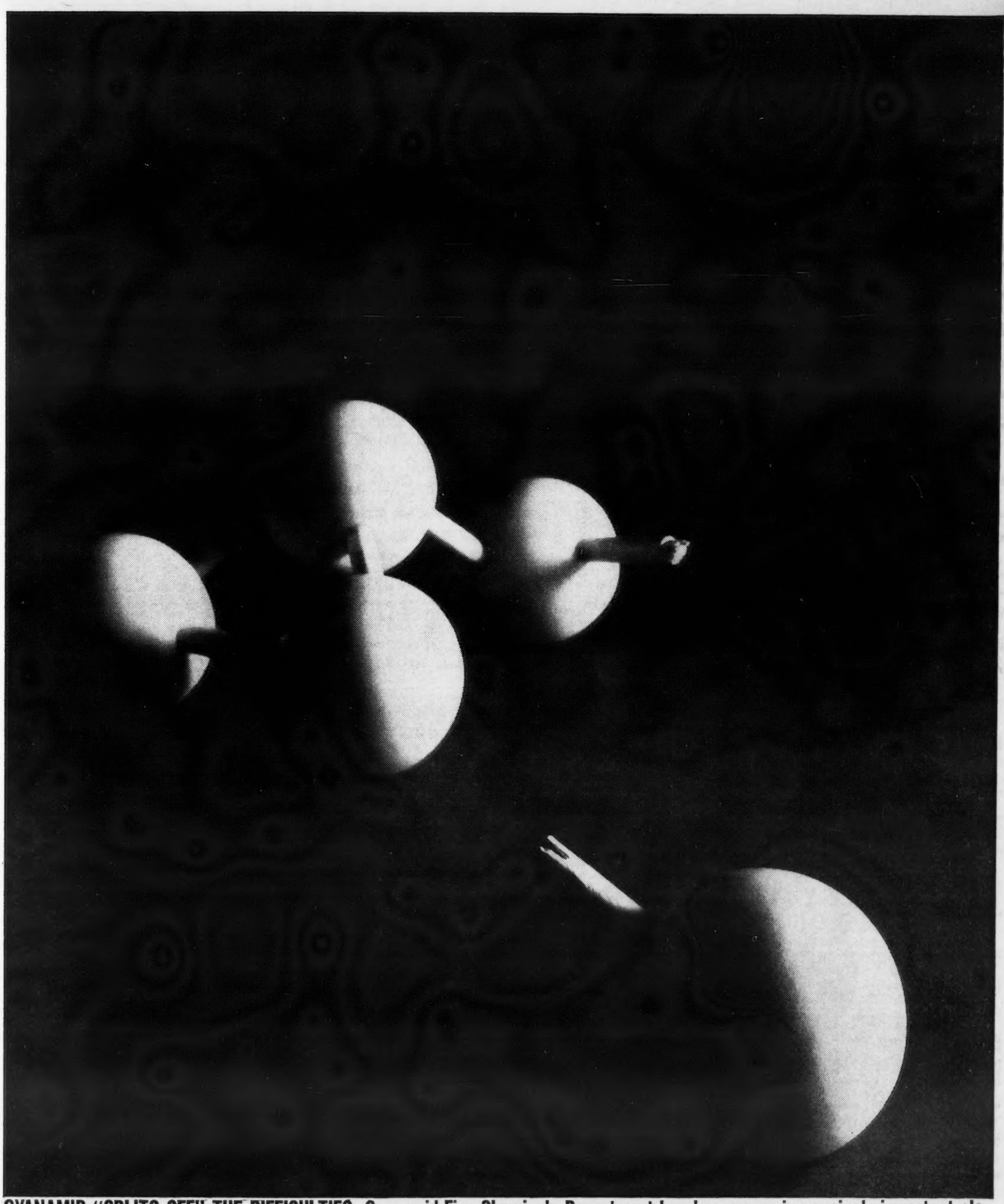
CHEMICAL DIVISION

Chromium oxide, hydrated, bbls., fib dms., c.l., frt. alld. lb. 1.20 - —
Pure, bgs., c.l., frt alld. lb. .44½- —
bgs. l.c.l., same basis lb. .45¼- —
Chromium trioxide, NF, bots lb. 1.15 - —
Cinchona bark, NF, red, broken, bgs lb .25 - —
NF yellow broken, bgs lb. .35 - .40
Cinnamic acid, refd., bots lb. 2.50 - 3.50
Cinnamic alcohol, bots lb. 1.50 - 1.60
Cinnamic aldehyde dms. lb. .80 - 1.00
Cinnamon Ceylon, No. 2, bgs lb. .53 - —
Ceylon No "0000," bgs lb. .73 - —
Cinnamon bark oil, bots lb. 55.00 - 74.00
Cinnamon leaf oil, crude, dms lb 1.60 - 2.00
USP (Cassia), cns., dms lb 8.50 - 13.50
Citral, CP bots lb 4.50 - 5.00
Extra bots lb 3.60 - 5.00
Syn., dms lb 7.25 - 7.40
Citric acid USP anhyd., fine gran., bgs, dms., c.l lb. .29½ - .30
bgs. dms. 10,000-lb lots, 1 shipt lb. .30 - .30½
bgs. dms. smaller lots lb. .30½ - .31
USP, hydrous, fine gran., bgs., dms., c.l lb. .27½- .28½
bgs dms., 10,000-lb lots, 1 shipt lb. .28 - .28½
bgs dms. smaller lots lb .29 - 29½
Powdered citric acid ½c per lb higher
Citronella oil, Ceylon, dms lb 1.00 - —
Java-type, dms. lb 1.00 - 1.20
Citronellal bots, dms. lb 1.40 - 1.60
Citronellol bots dms. lb 1.90 - 2.50
Synthetic, dms. lb. 1.70 - —
Clove bud, oil, bots oz 13.75 - 15.00
Nat bots oz 8.50 - 15.00
Clay, ball, dom airfloated, bgs., c.l Tenn ton. 17.50 - 21.50
crushed, shed moisture bulk, c.l., Tenn ton 8.00 - 11.25
imp airfloated bgs. c.l Atl port net-ton 43.00 - 47.00
lump bulk Atl port net-ton 31.50 - 37.50
Clay, China, dom., ory grd. air floated, 99% - 325 mesh, Georgia bgs. c.l. works ton. 11.00 - 17.00
Georgia bgs. l.c.l. works ton. 13.50 - 22.50
Imp., white, lump, bulk, c.l., ex-dock, Philadelphia, Portland, Me long-ton 23.00 - 35.00
white powd. bgs c.l. ex dock net-ton 50.00 -
bgs c.l. ex whse net-ton 60.00 - 70.00
Cleaners naphtha, petroleum 105 F Flash, tankcars, New Jersey and New York gal. 18 - —
Group 3 gal. 12.5-75- —
Houston Texas gal. 145 - —
140 F Flash, tankcars, New Jersey or New York gal. .205 - —
Group 3 gal. 154 - —
Houston Texas gal. 17 - —
Cleve's acid, tech, mixed, solid, dms, frt alld lb 1.05 - —
1.6 tech solid dms frt alld lb .77 - —
1.7 tech dms frt alld lb 2.20 - —
Clove bud oil, USP dms. lb. 2.65 - —
Cloves, Madagascar, bgs lb. .5 - —
Zanzibar, bgs lb. .37 - —
Clove leaf oil, crude, dms lb. 1.10 - —
CMC, crude 96.4% low or medium vis bgs., 23,000 lbs., dvld. E 100% basis lb .40 - —
96.4% low or medium vis. bgs., less than 23,000 lbs. dlvd. E., 100% basis lb. .42 - .46
65% low or medium vis. bgs., c.l., dlvd E 100% basis lb 40 -
l.c.l., dlvd E., 100% basis lb. .42 - 1.00
purified high vis (see Cellulose gum) CMC prices W. of the Rockies are 1c. per lb. higher and are on a dlvd. basis.
Coaltar, crude, resale tot soln., tanks, works gal. .17 -
Refd. resale, indust. dms. c.l., ex whse gal. .35 -
dms. l.c.l. ex whse gal .39 -
tanks works gal 20½- —
Coaltar pitch, aluminum, bulk, Works ton. 42.00 - —
Carbon, bulk works ton. 42.00 - —
Indust., bulk, works ton. 44.00 - —
Coke bulk works ton 40.50 - —
Fiber bulk works ton 48.00 - —
Roofing 140-155 F., Federal Specification RP-381, Type I, tanks, works ton. 41.00 - —
Cobalt acetate 25% Co dms dlvd lb 1.04 - —
Cobalt blue, genuine, 250 lb bbls dlvd E of Rockies lb 4.90 - —
Cobalt blue prices 1c higher W of Rockies
Cobalt blue, imitation (see Ultramarine blue)
Cobalt carbonate, 48% Co, powd., bgs, dlvd lb 1.45 - —
Cobalt chloride, 24.2% Co, dms dlvd lb .93 - —
Cobalt hydrate, 60-61% Co., dms. dlvd lb 1.97 - —
Cobalt linoleate, fused, 8½% Co., dms lb 71½ - —
Liq., 6% Co. dms lb 57½ - —
Cobalt metal, 98% dms. f.o.b carrier lb 1.50 - —
Cobalt naphthenate, liq, 6% Co. dms, dlvd lb 48¾ - —
Cobalt nitrate, 20.1% Co, bbls, dlvd lb .75 - —
Cobalt oxide, black, ceramic grade, 72½-73½% Co, kgs., dlvd E of Mississippi R lb 1.15 - —
70-71% Co, kgs, same basis lb 1.12 - —
Cobalt oxide, prices W. of Mississippi R 3c. per pound higher
Cobalt phosphate, powd., 42.1% Co, dms, dlvd lb 1.35 - —
Cobalt resinate, fused, 3% Co, dms lb. .38½- —
Cobalt sulfate, cryst., 21% Co, dms, dlvd lb .64 - —
Monohydrated, 33% Co, dms dlvd lb 1.09 - —
Cobalt tallate, 6% Co, dms, dlvd lb .44 - —
Cocaine, USP, cns, 100-oz lots, f.o.b. works oz 17.50 - —
Cocaine hydrochloride, cns, 100-oz lots, f.o.b. works oz 13.75 - —
Cocillana, bulk, cns lb .18 - .20
Cocoa butter, bgs lb. .55 - .60
Coconut oil, crude, tanks, New York lb. .13½- —
tanks, Pac. coast lb. .11¾- —
Refd., deodorized, dms lb. .19 - .20
Coconut oil, refined, dms, cns, bbls lb .2½ - .2½
double dist. (stripped), dms. lb. 22½ - .25
Cod oil, dms., spot lb .68¼- .68½
Codeine, NF, cns, 100-oz lots, oz 13.25 - —
Codeine hydrochloride, cns, 100-oz lots oz 11.75 - —
Codeine phosphate, USP, cns, 100-oz lots oz 10.25 - —
Codeine sulfate, USP, cns, 100-oz lots oz 10.75 - —
Codliver oil, USP, dms gal 1.40 - 1.70
Cohosh root, black, bls lb .20 - .25
Blue, bls lb 20 - 25
Colchicine, USP, bots. oz 27.50 - 29.00
Colchicum root, bls lb .35 - 45
Colchicum seed, bgs. lb. .85 - .90
Collodion, USP, dms. lb. .32½- —
USP flexible dms lb. .34 - —
Colocynth pulp, bls. lb. .75 - —
Colombo root, bls lb. .16 - .18
Condurango bark, bls lb .18 - 20
Congo copal gum, No. 1, bgs lb .26 - .27
No. 2, bgs lb .23 - 25
No. 3, bgs lb .21 - 24
Copaiba balsam, cns., dms. lb. .80 - .90
Copaiba oil, cns lb 1.35 - 2.00
Copper acetate, bbls., c.l., works lb 53 - —
bbls., l.c.l., works lb 54 - —
Copper carbonate, 55%, dark dense, c.l., works lb. 34.90 - —
bgs., l.c.l., works lb. 36.40 - —
Copper chloride, cupric, anhyd., dms., works lb. .44 - .44½
cryst., dihydrate, dms., works lb. .30¼- .30½
cryst., dried, dms., works lb. .38¼- .39
cuprous, dms., works lb. .3905- .4205
Copper cyanide, tech, dms., 20,000-lb lots or more lb. .609 - —
dms, 1,000-lb lots or more lb. 619 - —
dms, smaller lots lb 639 - .65
Copper gluconate, dms lb 3.20 - —
Copper hydrate, dry, dms, c.l., frt, E of Miss lb. .52½- —
dms., l.c.l., same basis lb. .53 - —
Copper metal, electrolytic, dlvd, Valley, basis lb. .30 - —
Copper naphthenate, liq, 8% Cu, dms, frt alld lb .26½ - —
Copper nitrate, tech, cryst, dms., works lb. .30¾ - .32¾
Copper oleate, solid, 9% Cu, dms., works lb 45 - —
Copper oxide, black, bbls, 100-5,000 lb. lots, works lb. .47 - —
red., 97%, USP, Type 1, bbls., 100-5,000 lbs. lots lb. .47½- —
90% USP, Type II, bbls, 100-5,000-lb lots or more, works lb. .45½- —
Copper quinolinolate, 18% Cu, dms., ton lots lb 4.25 - —
10% active quinolinolate, dms lb 1.14 - 1.15
Copper resinate, precip, dms, frt alld lb. .47 - —
Copper sulfate, CP, gran., dms., works lb. .1885- —
Cryst., 99%, bgs., c.l., works 100 lbs. 12.25 - —
bgs., l.c.l., works 100 lbs. 12.75 - 15.25
Copper sulfate, monohydrated, 35% dms., c.l., works 100 lbs. 23.00 - —
dms., l.c.l., works 100 lbs. 23.75 - —
Tribasic, distributors, 50-lb. bgs., c.l., works 100 lbs. 28.10 - —
bgs., l.c.l., works 100 lbs. 29.60 - —
Copper undecylenate, dms lb .475 - —
Copra, Atl., Gulf ports, c.i.f. ton. 165.00 - —
Pac. ports, c.i.f. ton. 160.00 - —
Coriander oil, USP, bots. lb. 6.50 - 7.25
Coriander seed, Moroccan, bgs lb. .18 - —
Rumanian, bgs. lb. .14 - —
Yugoslavian, bgs lb .08½ - —
Corn oil, crude, tanks, works lb. .17½- —
Foots, (soapstock acid 95%), tanks, New York lb. .07½ Nom.
Refd., salad, dms lb. .22½- .2250
tanks lb. .2123- —
Corn oil acids, dist., dms lb. .15½- .18
tanks lb. .13 - —
Corn sugar, tanners chipped, paper bgs, c.l. 60,000 lbs min 100 lbs 7.30 - —
paper bgs, l.c.l. 100 lbs 7.45 - —
Corn syrup, 43° Be., tanks, dlvd, N Y 100 lbs 6.30 - —
non-ret, dms, c.l., same basis, 100 lbs 7.23 - —
Corrosive sublimate (see Mercuric chloride)
Cortisone acetate, USP, bots, kilo or more gram .95 - 1.75
Costus oil, bots oz 6.00 - —
Cottonseed meal, 41% bgs, Memphis ton. 63.00 - 65.00
Cottonseed oil, crude, tanks, South, East lb. .14¾ Nom.
tanks, Valley lb. .14¼- —
tanks, Texas, Waco lb. .04½ Nom.
Foots (soapstock, acid 95%), New York, tanks lb. .14¼- —
Refd., salad, dms. lb. .20¼- .20½
tanks lb. .18¼- —
Cottonseed oil acids, dist., dms lb. .15½- .18
tanks lb. .13 - —
Coumarin, NF, cryst., dms. lb. 3.20 - 3.30
Cramp bark, NF, bls. lb. .90 - 1.00
Cream of tartar (see Potassium bitartrate).
Creosote carbonate, NF, bots, chys. lb 3.05 - 3.20
Creosote, coaltar, crude, tanks, works, frt adjusted gal .24 - —
Crude soln 80% tanks, works gal 226 - —
Refd, dms., c.l., works gal. 50 - —
dms, l.c.l. same basis gal 62 - —
tanks same basis gal .38 - —
West Coast creosote prices computed on a basis of 24c per gallon for straight oil and 20c per gallon for coaltar
Creosote, beechwood, chys, dms., f.o.b works, dlvd in Metropolitan area lb 1.72 - 1.77
Hardwood, NF, chys, dms, same basis lb 1.42 - 1.47
Pinewood, dms, incl. c.l. works lb. .0611- —
dms, incl. l.c.l. works lb. .0684- —
dms, incl. l.c.l. ex whse, New York lb. .0795- —
tanks, works lb. .0511- —
Creosote oil (see Creosote coaltar).
Cresol, tech, 50% below 204°C., dry above 207°C., wide distillation range, non-ret. dms, c.l. frt alld lb. .16½- —
non-ret, dms, l.c.l. same basis lb. .17½ - —
tanks, same basis lb. .145 - —
USP, 50% 204°C., dry above 207°C., wide distillation range, non-ret dms, c.l., same basis lb. .18 - —
non-ret, dms, l.c.l. same basis, lb. .19 - —
tanks, same basis lb 16 - —
m-p-Cresol, 5-95% 4°C., dms., c.l., frt equald lb 18 - —
dms., l.c.l. same basis lb 19 - —
tanks, same basis lb 16 - —
m-p-Cresol, 2.97% 2°C, dms., c.l., frt. equald lb. .22 - —
dms., l.c.l., same basis lb 23 - —
tanks, same basis lb 20 - —
o-Cresol, 30.5°C, m.p. and over, ret., dms, c.l. frt equald lb .17 - —
ret. dms., l.c.l., same basis lb .18 - —
tanks, same basis lb .15 - —
30°-30.49°C m.p. dms, c.l., frt. equald lb. .16½ - —
ret. dms., l.c.l., same basis lb. .17½ - —
tanks, same basis lb. 14½ - —
o-Cresol, 29°-29.9°C, m.p., dms., c.l., frt. equald lb. .16 - —
ret. dms., l.c.l., same basis lb. .17 - —
tanks, same basis lb. .14 - —
25°-28°C m.p., dms, c.l., frt. equald lb. .15 - —
ret. dms., l.c.l., same basis lb. .16 - —
tanks, same basis lb. .13 - —
p-Cresol, 98% dms, c.l., dlvd lb. .52 - —
dms., l.c.l., dlvd lb. .53 - —
tanks, dlvd lb. 49 - —
2,3-Cresotic acid, dms, ton lots, works lb. 70 - —
dms., smaller lots, works lb. 72 - —
p-Cresyl methyl ether, cns lb. 1.80 - 2.05
Cresylic acid, coaltar, dom., meta-para content above 25%, resins and tricresyl phosphate grades, dms., c.l., t.l. frt equald gal. 1.35 - —
dms., l.c.l., same basis gal. 1.40 - —
tanks, same basis gal. 1.15 - —
metapara content 25% or less, dms, c.l. t.l. same basis gal. 1.20 - —
Cresylic acid, coaltar, dom., meta-para content 25% or less, dms, l.c.l. same basis gal 1.25 - —
tanks frt equald gal 1.00 - —
Imp., metapara content 25% or less, f.o.b works, frt. equald to competitive points, 50 dms or more, gal. 1.03½- —
less than 50 dms, same basis gal. 1.05 - 1.15
tanks, same basis gal. 1.00 - —
Crotonaldehyde, 91-93% dms., l.c.l, works lb. .25 - —
Crotonic acid, dms, 200 lbs. or more, l.c.l., dlvd lb. .36 - —
Cryolite, nat., indust., bgs, c.l., works 100 lbs. 13.00 - —
bgs, l.c.l. works 100 lbs. 14.25 - —
Cube root, powd, 5% rotenone, bgs., t.l., works lb. .21 - —
bgs, t.l.t. works lb .22 - —
Cubeb berries, NF, bgs. lb. 1.30 - —
Powd., cs. lb. 1.45 - —
Cubeb oil, cns lb 8.75 - 9.00
Cumene, dms, c.l., works lb. .12 - —
dms., l.c.l., works lb. .14 - —
tanks, works lb .11 - —
Cumin seed, Iranian, bgs lb .19 - —
Moroccan, bgs lb. .36 - —
Turkish, bgs lb .18 - —
Cumin seed oil, bots, cns lb. 15.50 - 17.00
Cyanamide fertilizer, mixing grade, 21% N, gran., bgs., Niagara Falls, Ont contract, ton 57.00 - —
Cyanamide, fertilizer, pulv., 21% N, bgs., works unit-ton. 2.85 - —
Indust. grade, bgs., c.l., works, ton. 75.00 - —
bgs., l.c.l., works ton. 96.00 - —
Indust grade 6-16 mesh, dms, c.l., works ton. 120.00 - —
dms, l.c.l., works ton 140.00 - —
Cyclohexane, 99%, tech., dms., c.l., dlvd E of Rockies gal. 1.02 - —
dms, l.c.l. same basis gal. 1.10 - —
dms, c.l. dlvd W of Rockies gal. .77 - —
dms., l.c.l., same basis gal. .85 - —
tanks, works gal. .55 - —
98% tech 40-dm lots or more, f.o.b works gal. .56 - —
5-39 dms, same basis gal. .60 - —
tanks, same basis gal. .36 - —
Cyclohexanol, tech., dms, c.l., works, frt, alld, E lb. .30½- —
dms, l.c.l. works, same basis, lb. .31½- —
tanks, works, same basis lb. .28 - —
Cyclohexanone, tech, dms., c.l., works lb. .33½- —
dms., l.c.l. works lb. .34½- —
tanks, works lb. .31 - —
Cyclohexylamine, tech., dms., c.l., works lb. .49 - —
dms, l.c.l. works lb. .50 - —
tanks, works lb. 47 - —
Cypress oil, bots. lb. 5.30 - —

# D

2,4-D, tech, bgs, dms., c.l., works, frt equald lb. .40 - —
bgs, dms, l.c.l. same basis lb. .45 - .49
2,4-D, butyl ester, dms, c.l. works, lb. .43 - —
dms., l.c.l. same basis lb .48 - .52
tanks, same basis lb .42 - —
2,4-D, isopropyl ester, dms., c.l., works lb. .43 - —
dms, l.c.l., works lb. .48 - .52
tanks, works lb. .42 - —
Dammar gum, Batavia, A E, cs lb No stocks.
East India, Batu, bold, bgs lb. .15½ - .18
nubs and chips, bgs lb. .10 - .11
black, bold, bgs lb. .16 - .18
nubs and chips, bgs lb. .13 - .14½
unscraped, bgs lb. .13 - .14½
pale, chips, bgs lb. .16 - .18
pale, nubs, bgs lb 20¾ - .24
Siam, es lb. 31½ - .34
Singapore, No. 1, bgs. lb. .38 - .44
No. 2, bgs. lb. .29 - .32
dust, bgs. lb. .18 - 20
No. 3, bgs lb. No stocks.
Dandelion root, bls lb. .35 - .40
DDD, tech, flake, grd., fib dms., c.l., works lb. .45 - .47
fib dms, l.c.l. works lb. .46 - .48
DDT, flake or lump, bgs., c.l., dlvd lb. .23 - —
bgs, smaller lots, same basis, lb. .25 - —
fib dms, c.l., same basis lb. .24 - —
fib dms., smaller lots, same basis lb. 26 - —
Powdered DDT 1c per pound higher.
DDVP (see Dimethyl dichlorovinyl phosphate)
i-Decanol, tech, dms., c.l., dlvd E, lb. .43½- —
dms., l.c.l., dlvd E, lb. .45½- —
tanks, dlvd E lb. .41 - —
Decyl alcohol, mixed isomers, dms., c.l., dlvd lb. .20½- —
dms., l.c.l., dlvd lb. .22 - —
tanks, dlvd, lb. .18 - —
Perfume grade, bots. lb 1.00 - 2.00
Decyl alcohol, normal (see i-Decanol)
Deertongue leaves, bls. lb. .50 - .60
Defluorinated phosphate, feed grade 14% P, paper bgs., c.l., t.l., Tupelo, Miss ton. 52.00 - —
18% P, paper bgs., c.l., Plant City, Fla ton. 61.25 - —
paper bags, c.l., works, Miss ton. 66.00 - —
18% P, paper bgs., c.l., t.l. works, Houston, Tex ton. 66.35 - —
Prices of defluorinated phosphate in bulk $3 per ton less than bg. c.l prices
Degras, common (15-17% free fatty acid), 400-lb dms lb. .12 - .14
Neutral (over 2% free fatty acid), 400-lb dms lb. 13 - —
Denatured alcohol, ethyl, CD-12, CD-13, CD-14, CD-17, dms., c.l. dlvd E of Rockies, gal. 69½- —
dms, l.c.l. same basis gal. 74½ - .80½
tanks, dlvd, same basis gal. .53½ - —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, proprietary solvent, dms., c.l., dlvd E of Rockies gal. .72 - —
dms., l.c.l., same basis gal. .77 - .80
tanks, same basis gal. .56 - —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, SD1, dms., dlvd E of Rockies gal. .70½- —
dms, l.c.l same basis gal. 75½- .81½
tanks, same basis gal. .54½- —
SD2B, dms, c.l. dlvd E of Rockies gal. .69 - —
dms., l.c.l., same basis gal. .74 - .80
tanks, same basis gal. .53 - —
SD3A, dms, c.l., dlvd E of Rockies gal. .68 - —
dms, l.c.l same basis gal. 73 - .79
tanks, same basis gal. .52 - —
SD23A, dms., c.l., dlvd, E, of Rockies gal. 70½- —
dms., l.c.l., same basis gal. 75½- .81½
tanks, same basis gal .54½- —
SD23H, dms., c.l., dlvd, E, of Rockies gal. .71 - —
dms., l.c.l. same basis gal. 76 - .82
tanks, same basis gal. .55 - —
Denatured alcohol, SD29, dms., c.l., dlvd, E of Rockies gal. .69½- —
dms, l.c.l. same basis gal. 74½ - .80½
tanks, same basis gal. .53½- —
SD30, dms, c.l. dlvd E of Rockies gal. .68 - —
dms., l.c.l., same basis gal. 73 - .79
tanks, same basis gal. .52 - —
SD23H, dms., c.l., dlvd, E, of Rockies gal. .71 - —
dms, l.c.l., same basis gal. 76 - .82
tanks, same basis gal. .55 - —
SD-40, dms., dlvd, E, of Rockies, gal. .70½- —
dms., l.c.l., same basis gal. 75½ - .81½
tanks, same basis gal. 54½ - —
For anhyd. alcohol on above formulas prices are 7c per gal higher
West coast dlvd prices are the same as eastern prices, except in Idaho, Montana, Oregon, and Washington where a 5c differential on tankcars is maintained
d-Desoxyephedrine hydrochloride, dms lb. 15.00 - 17.00
dl-Desoxyephedrine hydrochloride, dms lb 6.50 - —
Dextrin, corn gum, paper bgs., c.l., 100 lbs. 9.39 - —
paper bgs., l.c.l. 100 lbs. 9.54 - —
canary dark, paper bgs., c.l 100 lbs. 9.23 - —
paper bgs., l.c.l 100 lbs. 9.38 - —
Indust. grade, 6-16 mesh, canary light, paper bgs., c.l. 100 lbs. 9.13 - —
paper bgs., l.c.l 100 lbs. 9.28 - —
white paper bgs., c.l. 100 lbs. 8.97 - —
paper bgs., l.c.l 100 lbs. 9.12 - —
Corn dextrin in cotton bgs 15c per 100 lbs higher
Dextrose anhyd., comi. bgs., c.l. 100 lbs 8.65 - —
bgs. l.c.l 100 lbs 8.80 - —
Anhyd. special, aluminum foil lined fib. dms., 200-lb dms 100 lbs. 14.70 - —
100-lb. dms. 100 lbs. 15.20 - —
Hydrated, comi., bgs. c.l., ex whse 100 lbs 7.45 - —
bgs. c.l., ex whse 100 lbs. 7.60 - —
USP dms lb. 19¾- —
Diacetone alcohol, acetone-free, dms., c.l., dlvd lb. .15½- —
dms., l.c.l., dlvd. lb. .17 - —
tanks, dlvd lb. .13 - —
Tech, dms, c.l. dlvd. lb. .15 - —
dms, l.c.l., dlvd lb. .16½- —
tanks, dlvd lb. .12½ - —
Diacetyl, flavor grade, bots lb. 3.30 - 4.30
Di-sec-amyl phenol, dms., c.l., works lb .32 - —
dms., l.c.l. works lb. .33 - —
tanks, works lb. .29¼- —
Di-tert-amyl phenol, dms, c.l., works lb. .32 - —
dms, l.c.l., works lb. .33 - —
tanks, works lb. .29½- —
Diallylamine, dms., c.l., dlvd. lb .98½- —
dms, l.c.l., dlvd. lb. 1.00 - —
tanks, dlvd lb. .96 - —
o-Dianisidine, dry, tech., fib, dms. lb 2.00 - —
Dibenzyl sebacate, dms., c.l., works, lb. .93 - —
dms., l.c.l., same basis lb. .94 - —
tanks, same basis lb. .91 - —
Dibromobenzene, bgs., 500-lb. lots, lb. .55 - —
2,6-Di-tert-butyl-p-cresol, feed grade, c.l., t.l., dms., dlvd lb. .65 - —
l.t.l., dms., same basis lb. .68 - —
Food grade, c.l. t.l. dms., dlvd, lb. .65 - —
dms, l.t.l., same basis lb. .68 - 1.10
Tech., Jms., c.l., t.l., dlvd. lb. .57 - —
dms., l.c.l., same basis lb. .60 - —
tanks, same basis lb. .54 - —
Dibutyl fumarate, dms., c.l., t.l., dlvd, E lb. .31½- —
dms., l.c.l., t.l.t., dlvd, E lb. .33 - —
tanks, dlvd E lb. .29 - —
Dibutyl maleate, dms., c.l., t.l., dlvd, E lb. .31½- —
dms., l.c.l., t.l.t., dlvd, E lb. .33 - —
tanks, dlvd E lb. .29 - —
Dibutyl phthalate, dms., c.l., dlvd, E lb. .31½- —
dms., l.c.l., same basis lb. .33 - —
tankcars, tanktrucks, 2,000 gals., same basis lb. .29 - —
tanktrucks, 1,000-1,999 gals., same basis lb. .29 - —
Dibutyl sebacate, dms., c.l., works, lb. .67½- —
dms., l.c.l., works lb. .68½- —
tanks, works lb. .65½- —
Dibutyl tartrate, dms., works, frt. alld lb. .65½- —
Dibutylamine, dms., c.l., dlvd lb. .55½- —
dms., l.c.l., same basis lb. .57 - —
tanks, same basis lb. .53 - —
Dicapryl phthalate, dms., c.l., dlvd. lb. .28½- —
dms., l.c.l., dlvd. lb. .30 - —
tanks, dlvd. lb. .26 - —
Dicaprylyl sebacate, dms., c.l., works, lb. .63 - —
dms., l.c.l., works lb. .63½- .64
tanks, works lb. .61 - —
2,5-Dichloroaniline, dms., works lb. .83 - —
3,4-Dichloroaniline, tech., solid, tanks, frt alld lb. .73 - —
o-Dichlorobenzene, dms., c.l., frt. alld, E lb. .12¾- —
dms., l.c.l., same basis lb. .13¾- —
tanks, same basis lb. .11 - —
p-Dichlorobenzene, dms., c.l., t.o.b., works, frt. alld. E lb. .12 - —
dms, 2,000 lbs or more, same basis lb. .14½- —
1,4-Dichlorobutane, dms., c.l., or t.l., works lb. .33½- —
dms., l.c.l., or t.l.t., works lb. .34 - —
tanks, works lb. .32 - —
Dichlorodiphenyltrichloroethane (see DDT).
2,2-Dichloroethyl ether, dms., c.l., t.l., dlvd E lb. .15½- —
dms., l.c.l., t.l.t., same basis lb. .17 - —
tanks, same basis lb. .13 - —
Dichloroisocyanuric acid, dms., c.l., t.l. frt equald lb .65 - —
dms., l.c.l., same basis lb. .75 - —



**CYANAMID "SPLITS OFF" THE DIFFICULTIES.** Cyanamid Fine Chemicals Department has become an increasingly important element in the marketing plans of pharmaceutical manufacturers. Assurance of uniformity and top quality in materials helps protect against the possibility of variations in properties and potency, or instability in the final formulation. Our clients appreciate and look for the extra security which comes from Cyanamid reliability... just as they frequently seek the help we can give in any phase of production, through our complete custom synthesis service. Vitamins, sulfonamides, antibiotics, non-inhibitory intrinsic factor concentrate, other bulk pharmaceuticals and cosmetic chemicals. Complete custom synthesis service.

CYANAMID | AMERICAN CYANAMID COMPANY · FINE CHEMICALS DEPARTMENT/Pearl River, New York.

Dichloropentanes dist. dms., c.l., works lb .05 —
dms., l.c.l., works lb .06 - —
tanks works lb .03 - —
Dichlorophenoxyacetic acid (see 2,4-D)
Dicyclohexylamine dms. c.l. works lb .54 —
dms., l.c.l., works lb .55 - —
tanks works lb .52 —
Dicyclohexyl phthalate, gran. fib. dms c.l. works frt alld lb. .49½- —
fib. dms., l.c.l., same basis lb. .51½- —
Dicyclopentadiene dms c.l. f.o.b works lb 14½ —
dms., l.c.l. same basis lb 14¾- —
tanks same basis lb 14¾ —
Didecyl phthalate dms. c.l. works lb. .27½- —
dms., l.c.l., same basis lb. .29 - —
tankcars tanktrucks 2,000 gals lb. .25 - —
tanktrucks 1,000-1,999 gals, same basis lb .26½- —
Dieldrin, dms., c.l. dlvd. lb 1.85 —
dms. l.c.l dlvd lb 1.90 —
Diethanolamine dms. c.l. dlvd & E lb .27 —
dms. l.c.l. same basis lb .28½- —
tanks same basis lb .24½- —
Diethanolamine lauryl sulfate, dms., c.l. frt alld lb .27½ —
dms. l.c.l. frt alld lb .28½ —
tanks frt alld lb .26½ —
Diethyl barbituric acid (see Barbital)
Diethyl carbonate dms c.l., f.o.b works lb .47½ —
dms. l.c.l. same basis lb .48½ —
tanks same basis lb .45 —
Diethyl ethanolamines, dms., c.l., dlvd lb .69½- —
dms. l.c.l. dlvd. lb .71 —
tanks dlvd lb .67 —
Diethyl oxalate dms. c.l., f.o.b works lb .42½ —
dms. l.c.l. same basis lb .43½ —
tanks same basis lb .40 —
Diethyl phthalate dms. c.l. dlvd lb. .29¾- —
dms., l.c.l., dlvd. lb. .31¼- —
tanktrucks 1,000-1,999 gals same basis lb. .27¾ —
tankcars tanktrucks 2,000 lb lots, same basis lb. .27¼ —
Diethyl sulfate, dms, c.l. frt alld E. lb. .21 —
dms., l.c.l., frt alld. E lb. .22½- —
tanks, frt alld E lb. .18½- —
Diethyl thiourea dms. c.l., t.l., works lb .58 —
dms. l.c.l. same basis lb .59 —
Diethyl toluamide 90-95% meta isomer dms c.l. t.l. works lb 2.30 —
5-44 dm lots works lb 2.35 - —
1-4 dm lots works lb 2.40 —
N,N-Diethyl-m-toluidine tech., liq., tanks, frt alld lb .83 —
Diethylamine dms c.l. dlvd & E lb .52 —
dms. l.c.l. same basis lb .53½ —
tanks same basis lb .49½ —
N,N-Diethylaniline dms. c.l., frt alld lb .57 —
dms. l.c.l. same basis lb .58 —
tanks same basis lb .55 —
Diethylbenzene, 380 lb dms., c.l., t.l. frt alld., Zone 1 lb 17½ —
f.o.b. Zone 2 lb .18½ —
Diethylbenzene, 380-lb. dms., l.c.l., c.l., f.o.b Zone 1 lb .19½ —
f.o.b warehouse points, Zone 2 lb .20½ —
Diethylbenzene tankcars, Zone 1 lb .15 —
Zone 2 lb .16 —

Zone 1 is East of the Rockies, Zone 2, West of the Rockies

Di-2-ethylhexyl adipate (see Di-octyl adipate).
Di-2-ethylhexyl phthalate (see Di-octyl phthalate).
phthalate)
Diethylene glycol dms c.l. dlvd & E lb 17¾ —
dms. l.c.l. same basis lb 19¼ —
tanks same basis lb 15¼ —
Diethylene glycol diethyl ether, dms., c.l., works lb. .55 —
dms., l.c.l., works lb .55¾- —
Diethylene glycol monobutyl ether, c.l., dms., frt alld E lb .30¾- —
dms., l.c.l., frt. alld. E lb. .32¼- —
tanks, frt alld E lb .28¼- —
Diethylene glycol monobutyl ether acetate, dms., c.l., works lb. .30¾- —
dms., l.c.l., works lb. .31½- —
tanks, works lb. .28¾- —
Diethylene glycol monoethyl ether, dms., c.l., dlvd E lb. .22½- —
dms., l.c.l., dlvd E lb 24 - —
tanks dlvd E lb 20 —
Diethylene glycol monoethyl ether works lb 27¼ —
dms. l.c.l. works lb 28 —
tanks works lb 25¼ —
Diethylene glycol monomethyl ether, dms., c.l., dlvd. E lb. .21 —
dms., l.c.l., dlvd E lb. .22½- —
tanks dlvd E lb 18½ —
Diethylenetriamine dms. c.l. dlvd. E lb 44 —
dms. l.c.l. dlvd & E lb 45½ —
tanks dlvd E lb 41½ —
Diethylstilbesterol USP, bots. 10-kilo lots kilo 100.00 147.50
bots 1 kilo lot kilo 110.00 152.50
Digitalis leaves USP dom dms lb 1.25 —
Digitoxin, USP, bots gram 3.75 4.20
Diglycol laurate dms. ton lots lb .32½ —
Diglycol stearate, dms. t.l lb .26 —
Diglycolic acid bgs. c.l. t.l. works, lb 15½ —
bgs l.c.l. works lb .16 —
Dihexyl sebacate dms. c.l. works, lb 66 —
dms., l.c.l., works lb 67 —
tanks works lb 64 —
Dihydrazine sulfate, dms., works lb 1.10 1.25
Dihydrostreptomycin sulfate bulk gram .03 —
1,2-Dihydroxy anthraquinone dms., works lb 3.45 —
2,2-Dihydroxy-5-5-dichloro diphenyl methane, pure dms lb 2.55 —
Tech dms., 20,000 lbs or more lb 1.11 —
dms. 1,050 lbs to 20,000 lbs lb 1.13 —
dms. 150 lbs to 1,050 lbs lb 1.15 —
Di-isobutyl ketone dms. c.l. dlvd lb .17 —
dms. l.c.l. dlvd lb 18½ —
tanks dlvd lb 14½ —
Di-isobutyl phthalate dms., c.l., dlvd E. lb .31½ —
dms. l.c.l. same basis lb 32½ —
tanks same basis lb 29 —
Di-isobutylene dms c.l. dlvd E lb 10 —
dms. l.c.l. dlvd E lb 11½ —
tanks dlvd E lb 08 —
Di-iso-octyl phthalate, dms., c.l., works lb .29 —
dms., l.c.l. same basis lb .30½- —
tanktrucks, 1,000-1,999 gals. works lb .27 —
tankcars tanktrucks 2,000 gals., works lb .26½- —
Di-iso-octyl sebacate dms., c.l., works lb .62 —
dms., l.c.l., works lb .61¼- —
tanks works lb .60 —
Di-isopropanolamine dms., c.l., dlvd. lb. .23¼- —
dms., l.c.l., same basis lb. .24¾- —
tanks, same basis lb. .20¾- —
Di-isopropylamine dms. c.l., dlvd. E of Rockies lb. .50½- —
dms., l.c.l., same basis lb .52 -
tanks, same basis lb 48 -
Dillweed oil, dom., bots., dms lb 5.25 -
Dimethyl anthranilate cns lb 4.15 -
Dimethyl dichlorovinyl phosphate, 55-gal dms. dlvd lb 3.50 —
Dimethyl ethanolamine, anhyd., dms., c.l., dlvd E lb. .78 -
dms., l.c.l., dlvd. E lb. .79½- —
tanks, dlvd E lb. .75½- —
Dimethyl ethanolamine, 70%, dms., c.l., dlvd., 100% basis, contained amines lb. .78 -
dms. l.c.l. dlvd. 100% basis lb. .79½- —
tanks, dlvd., 100% basis lb. .75½- —
Dimethyl hydroquinone dms. lb 1.90 2.20
Dimethyl phthalate, dms., c.l., works lb. .29¾- —
dms., l.c.l., works lb. .31¼- —
tanktrucks, 1,000-1,999 gals., same basis lb. .27¾- —
tankcars tanktrucks, 2,000 gals., same basis lb. .27¼- —
Dimethyl sebacate dms., c.l., works. lb 1.31 -
dms., l.c.l., works lb 1.30 -
tanks, works lb 1.28 —
Dimethyl sulfate ref. dms., c.l., works lb 17½- —
ref. dms., l.c.l., works lb 18½- —
tanks, works lb .16½- —
Dimethyl sulfide, dms., c.l., works. lb. .17½- —
dms., l.c.l. works lb. .18½- .19½
tanks, works lb. .15 —
Dimethyl sulfoxide, dms., c.l., f.o.b. works lb. .35 - —
dms., l.c.l., same basis lb. .37 - .38
tanks, same basis lb. .33 - —
Dimethylamine, 25% soln., dms., c.l., frt. equald. 100% basis lb. .38 —
dms. l.c.l. frt equald. 100% basis lb. .38½- —
tanks, frt equald. 100% basis, lb 28 —
40% soln., dms., c.l., frt. equald., 100% basis lb. .35 - —
dms. l.c.l., frt equald. 100% basis lb. .35½- —
lb 28 —
N,N-Dimethylaniline, dms., c.l., frt. alld lb 28 -
dms. l.c.l., same basis lb 29 —
tanks, same basis lb 26 —
N,N-Dimethylformamide, dms., c.l., t.l., works lb .32½- —
dms., l.c.l., works lb .33 .34
tanks, works lb 30 —
2,4-Dinitroaniline, dms, frt alld lb. 75 —
Dinitroaniline orange toner, CP, bbls, dlvd E of Rockies. lb 1.61 —

Dinitroaniline orange toner prices 1c. higher W of Rockies

m-Dinitrobenzene 89°C., dms. lb .26 —
2,4-Dinitrochlorohenzene, crystallizing at 46½°C, dms., c.l., frt. alld E lb. .17¼- —
dms., l.c.l. frt alld E. lb. .17¾- —
tanks frt alld E lb .17 —
2,4-Dinitrophenol bbls lb 41 —
2,4-Dinitrotoluene oil dms. lb 11 —
Refd 63°C dms lb .23 —
Dioctyl adipate, dms., c.l., works lb. .38½- —
dms., l.c.l., works lb. .39½- —
tanks, works lb. .36 - —
Dioctyl phthalate dms c.l. frt alld. E lb. .27 - —
dms., l.c.l., frt. alld. E lb. .29½- —
tanktrucks 1,000-1,999 gals same basis lb. .25 - —
tankcars tanktrucks 2,000 gals., same basis lb. .24½- —

Dioctyl phthalate prices ¾c higher in West.

Dioctyl sebacate dms. c.l. works lb 61¼ —
dms. l.c.l. works lb 62¼ —
dms., l.c.l., works lb .62¼ —
tanks works dlvd lb 59¼ —
1,4-Dioxane, dms. c.l., frt. alld E. lb. .31½- —
dms., l.c.l., frt. alld. E lb. .33 - —
tanks, frt. alld. E lb. .29 —

Prices in the west are 2c per lb higher.

Dipentaerythritol ngs c.l. t.l., dlvd E lb. .34 - —
bgs., l.c.l., t.l.l., dlvd E lb. .35 - —
Dipentene, dest.-dist. dms., c.l., works gal .58 —
dms. l.c.l. works lb .62 —
dms., l.c.l. ex whse gal .78 —
tankscars works gal .41 —
Steam dist. dms. c.l., works, South gal .72 —
dms., l.c.l., dlvd New York gal .91 - —
tanks, works, South lb .55 - —
Dip oil (see Fat acid oil)
Diphenolic acid 1,000-lb or more, bgs works lb .75 -
Diphenolic polyether acids 1,000-lb or more bgs. works lb 1.00 —
Diphenyl, bgs. c.l. t.l. works lb 16¾ —
bgs., l.c.l., works lb 18½ —
tanks works lb 15¾ —
Diphenyl oxide perfume grade cns lb .55 .70
Diphenyl phthalate dms. c.l. works. lb .52 —
dms., l.c.l. works lb .54 —
Diphenylamine, refd flake ngs c.l., works frt equald lb .32 —
bgs. l.c.l., same basis lb .34 —
Refd., fused tanks same basis lb. 29 —
Refd. diphenylamine in dms. ½c per lb higher
Diphenylguanadine bgs., dms., ton lots, frt. alld lb. .51 - —
bgs., smaller lots, frt alld lb. .52 - —
Diphenylhydantoin sodium USP, dms lb 5.00 5.60
Dipropylene glycol dms. c.l. frt. alld lb .17 —
dms. l.c.l. frt alld lb 18½ —
tanks frt alld lb 14¼ —

Dipropylene glycol prices 1c. higher in West.

Dipropylene glycol methyl ether, dms c.l. dlvd E lb .20 —
dms. l.c.l. same basis lb 21½ —
tanks, same basis lb 18½ —
Dithiodibenzoic acid dms 1,000-lb lots, works lb 1.80 —
Di-o-tolylguanidine dms ton lots, frt alld lb .71 - —
dms., smaller lots, frt alld lb .72 - —
Di-o-tolylthiourea tech solid, dms., c.l. t.l. frt alld lb .55 —
Divinylbenzene 20-25% dms. c.l., works frt equald lb .20 —
dms. l.c.l. same basis lb .21 —
tanks, same basis lb .19 —
50-60% dms. c.l. works, 100% basis lb 1.00 —
dms. l.c.l. works, 100% basis lb 1.05 —
tanks same basis lb .90 —
Dodecenyl succinic anhydride dms. c.l., t.l., dlvd. E lb. .50 - —
dms, l.c.l., t.l.l. same basis lb. .52 —
Dodecylbenzene, dms., c.l., f.o.b., works, frt equald lb. .134 - —
dms., l.c.l., same basis lb. .144 - —
tanks, same basis lb. .11 - —
Dodecylphenol c.l., frt. alld lb. .22½- —
dms., l.c.l., same basis lb. .23½- —
tanks, same basis lb. .20 - —

Dodecylphenol prices on shipments to Western States are 2c per pound higher.

Dyes, coaltar, certified colors for food, drugs and cosmetics, 500-lb. and 1-lb. lots, dlvd.:
Blue, FD&C, No 1 lb.15.65 -17.60
No 2 lb.15.65 -17.60
Green, FD&C, No. 1 lb.15.65 -17.60
No 2 lb.19.60 -22.85
No 3 lb.31.30 -35.90
Red, FD&C, No. 2 lb. 3.30 - 4.10
No 3 lb.19.60 -22.85
No 4 lb 5.55 7.50

Dyes, coaltar, certified colors for drugs and cosmetics 500-lb and 1-lb. lots, dlvd:
Yellow, FD&C, No. 5 lb. 3.30 - 4.10
No 6 lb 3.30 4.10

Dyes, coaltar, certified colors for drugs and cosmetics, 200-lb. and 1-lb lots, dlvd.:
Black, D&C, No 1 lb.10.50 -10.95
Brown, D&C, No 1 lb.15.65 -16.10
Green, D&C, No. 5 lb.15.65 -16.10
No 6 lb.15.65 -16.10
No 7 lb.14.35 -14.80
Orange, D&C, No. 3 lb.10.50 -10.95
No 4 lb.19.60 -20.05
No 5 lb 3.80 4.25
Red, D&C, No. 17 lb.10.50 -10.95
No 18 lb.23.60 -24.00
No 19 lb.15.00 -15.45
No 21 lb 3.90 4.35
No 22 lb.10.50 -10.95
No 28 lb.24.15 -24.65
No 33 lb.17.00 -17.45
Violet, D&C, No 2 lb.15.65 -16.10
Yellow, D&C, No. 7 lb.10.50 -10.95
No 8 lb.10.50 -10.95
No 10 lb.13.05 -13.50
No 11 lb.13.05 -13.50

Dyes, coaltar, certified colors for drugs and cosmetics, external use, 500-lb. and 1-lb. lots, dlvd.:
Blue, Ext., D&C, No. 1 lb.15.65 -16.10
Green, Ext, D&C No 1 lb.15.65 -16.10
Red, Ext., D&C, No 1 lb.13.05 -13.50
Yellow, Ext, D&C, No 1 lb.10.50 -10.95

Dyes, coaltar for general use in cloth dyeing (numbers are those of the Color Index scale or prototype), contract dlvd No.
11110 Brilliant scarlet BN lb. 1.79 - —
13390 Fast blue SR lb. 1.57 - —
14025 Yellow 2G lb. 1.26 - —
14030 Orange R, extra, conc. lb. 1.64 - —
14645 Chrome black F lb. .77 - —
14720 Rubine XX, conc lb. 1.76 - —
15510 Orange Y, extra conc. lb. .83 - —
15575 Orange RR lb. .99 - —
15620 Fast Red A, conc. lb. 1.77 - —
15705 Chrome blue black R, conc. lb. 1.12 - —
16150 Scarlet 2RL lb. 1.22 - —
16255 Brilliant scarlet 3RN, conc. lb 1.26 - —
16230 Fast light, orange 2G lb. 1.39 - —
17590 Brown PG lb. 3.00 - —
18050 Phloxine 2G lb. 1.16 - —
18055 Fuchsine 6B lb. 1.55 - —
18965 Fast yellow 2G lb. 2.32 - —
19140 Yellow XX lb. 2.48 - —
19555 Yellow NN conc. lb. 3.67 - —
20170 Brown Y lb. 1.33 - —
20470 Blue black, extra, conc. lb. 1.44 - —
21010 Brown, RX, conc lb. 1.42 - —
22240 Scarlet B lb. 2.81 - —
22310 Red FC lb. 1.57 - —
22311 Brown MCW lb. 1.59 - —
22810 Blue 2B, extra conc lb. 1.51 - —
23500 Red 4BX, conc. lb. 1.80 - —
24410 Sky blue FF extra conc. lb. 1.95 - —
24895 Brilliant yellow conc lb. 3.27 - —
26360 Navy blue 3R, conc lb. 1.84 - —
26695 Black F, conc. lb. 2.30 - —
26900 Milling Red 3R, conc lb. 2.24 - —
27075 Neutral black 2B, conc lb. 2.75 - —
27720 Gray L lb. 2.18 - —
29185 Fast scarlet 4BNC lb. 2.23 - —
30015 Diazo black VJ conc. lb. 2.48 - —
30045 Yellow brown K, extra lb. 1.45 - —
30235 Black EB, 200% lb. 1.33 - —
30295 Green BY conc. lb. 1.07 - —
35660 Brown B lb. 2.89 - —
37565 Naphthol SWF lb. 1.85 - —
40000 Yellow 2G lb. 1.44 - —
41000 Yellow OX lb. 2.45 - —
42000 Green V crystals lb. 2.73 - —
42040 Brilliant green G crystals lb. 3.62 - —
42090 Blue EG lb. 1.85 - —
42100 Milling green 6B, conc. lb. 4.78 - —
42640 Violet 4BXN lb. 2.43 - —
43830 Brilliant blue, BBG lb. 2.44 - —
44045 Blue B, extra conc. lb. 3.61 - —
45170 Red BX lb. 4.76 - —
50415 Nigrosine SSJ lb. 1.03 - —
52015 Blue GXX lb. 2.54 - —
58005 Alizarin red SC lb. 3.64 - —
59700 Golden orange GFD, single paste lb. 2.70 - —
59710 Flaming orange 6RD double powder lb. 4.90 - —
59800 Dark blue BO, single paste, lb. 2.28 - —
59825 Jade green NC supra, double paste lb. 1.75 - —
61570 Alizarin green CG extra lb 3.81 - —
63010 Alizarin blue SAPG lb 3.90 - —
63615 Alizarin blue black B lb 3.26 - —
69825 Blue BLFD double paste lb 2.76 - —
70805 Brown BR single paste lb 2.03 - —

Dyes, coaltar, oil-soluble 100-lb drums, dlvd. No
12140 Oil scarlet BL lb 1.87 —
12055 Oil orange 7078 V lb 1.38 - —
26120 Oil red N 1700 lb 1.94 - —
42535B Methyl violet base lb 1.88 - —
44045B Victoria blue base lb 4.06 - —
50415B Oil black 8603 lb. .80 - —
61565 Alizarin cyanine green base, lb. 6.13 - —

Dyes, coaltar, spirit soluble, 100 lb. dms., dlvd., Black RB lb. 3.89 - —
Spirit brown GN lb. 5.30 - —
Spirit orange R conc. lb. 5.87 - —
Spirit red B conc. lb 6.41 - —
Pr 517 Spirit yellow 2R conc lb 4.62 - —
Pr 554 Spirit blue THN lb 5.06 - —

## E

Echinacea root, bls lb 1.25 —
Elm bark grinding, bls. lb. .30 .32
Powd., bbls, ½s lb. 60 —
Select, bundles lb. 75 - —
Emetine hydrochloride USP bots. oz.48.40 - —
Endrin tech dms. 100-lbs or more, 100% basis, dlvd lb 2.77 - —
Eosin red toner bbls works lb 1.95 - —
Ephedrine syn. USP, anhyd., bots. 100-oz lots oz. .98 1.00
hydrous bots. 100-oz lots, oz. .92 —
Ephedrine hydrochloride NF dms., 100-oz., f.o.b works oz. .75 - —
Ephedrine sulfate USP, cryst. dms., 100-oz f.o.b works oz. .73 - —
USP powd. dms., 100-oz. same basis oz. .73 -
Epichlorohydrin, dms., c.l., dlvd lb. .29½- —
dms. l.c.l., dlvd. lb. .31 - —
tanks, dlvd. lb. .27 - —
Epinephrine base, syn. USP bots., 100 gram lots gram .58 —
Epsom salt (see Magnesium sulfate).
Erigeron oil cns lb.11.00 —
Ergot, NF, dms., tin-lined lb. 2.00 - 2.50
Eserine salicylate, bots oz.34.50 -40.00
Eserine sulfate, bots. oz.86.00 —

Ester gum, gum-rosin type, dms., c.l. dlvd., Ill., Md. Ky., E. States, Minneapolis, N. C., Ohio, St Louis, St Paul, Va., W Va lb. .18½- —
Wood-rosin type, dms. c.l., same basis lb. .18½- —
Ether (see specific product)
Ethyl acetate, nat., ferment, 85-88%, dms., c.l. dlvd lb. .15 - —
dms., l.c.l., dlvd lb. .16½- —
tanks dlvd lb. .12½- —
95-98% dms. c.l., dlvd. lb. .15¼- —
dms., l.c.l., dlvd lb. .16¾- —
tanks dlvd lb. .12¾- —
99%, dms., c.l., dlvd lb. .15½- —
dms. l.c.l., dlvd lb .17 - —
tanks, dlvd lb .13 - —
syn., 95-98%, dms., c.l., dlvd lb. .15 - —
dms., l.c.l., dlvd lb. .16½- —
tanks, dlvd lb. .12½- —
Ethyl acetate syn. 95-98%, dms., c.l., dlvd lb. .15¼- —
dms., l.c.l., dlvd lb. .16¾- —
tanks dlvd lb. .12¾- —
99% dms. c.l. dlvd. lb. .15½- —
dms., l.c.l., dlvd. lb .17 - —
tanks dlvd lb .13 —
Ethyl acetoacetate, dms., c.l., dlvd. lb. 58½- —
dms., l.c.l., dlvd. lb. .60 —
tanks, dlvd lb. .56 - —
Ethyl acrylate, dms., c.l., t.l., dlvd. lb. .34¾- —
dms., l.c.l., dlvd lb. .35¾- —
tanks, dlvd. lb. .32¼- —
Ethyl alcohol 190 pf., USP, tax paid dms. c.l. dlvd E of Rockies gal 20.63 —
dms. l.c.l. same basis gal. 20 73 -20.84
USP, tax-free, dms., c.l., dlvd. E. of Rockies gal. .68 - —
dms., l.c.l., same basis gal 78 .89
tanks, same basis gal 52 —
Ethyl alcohol, absolute 200 pf., tax paid, dms dlvd E of Rockies gal 21 75 —
dms., l.c.l., same basis gal. 21.85 -21.96
tanks same basis gal 21 59 —
Ethyl alcohol denatured (see Denatured alcohol, ethyl)
Ethyl aminobenzoate USP (see Benzocaine).
Ethyl amyl ketone dms. c.l., dlvd lb .40 —
dms. l.c.l. same basis lb 21½ —
tanks same basis lb 17½ —
Ethyl benzoate bcts lb 75 1.00
Ethyl bromide tech., 98%, dms. c.l., frt alld, E lb 43 —
dms. l.c.l. frt alld E lb 45 —
tanks, frt. alld E lb. .40 - —
2-Ethyl butyl alcohol, dms., c.l., works lb .30 —
dms., l.c.l., works lb .30¾- —
tanks, works lb .28 - —
Ethyl butyl ketone dms., c.l., t.l., works lb. .36 —
dms l.c.l. t.l. works lb .36¾- —
tanks works lb .34 —
Ethyl butyrate dms. works lb. .85 1.00
Ethyl carbamate (see Urethane)
Ethyl cellulose vis 4 cps. ngs., 5,000 lb lots or more, frt. alld E lb. .73 —
bgs. smaller lots frt alld E lb .75 —
vis. 10, 20, 50, 100, 150 cps., bgs., 5,000-lb. lots or more, frt. alld. E lb. .68 - —
bgs. smaller lots frt alld E lb .70 —
Ethyl chloride tech. cyls. works lb .20 .22
dms. works lb .18 .20
tanks works lb .10 —
Ethyl cinnamate, cns lb. 3.35 3.50
Ethyl ethanolamines, mixed, dms., c.l., dlvd E lb .43½ —
dms. l.c.l. dlvd E lb .44½ —
tanks dlvd E lb .41½ —
Ethyl ether, absolute ACS dms lb .27 —
Anesthesia USP dealers, 1-lb cns lb 1.01 —
½ lb cns lb 1.09 —
¼-lb cns lb 1.21 —
Indust. dms. c.l. dlvd. lb. .13½- —
dms., l.c.l., dlvd E lb .15 —
tanks dlvd E lb .11 —
2-Ethyl hexoic acid dms. c.l., t.l., dlvd E lb .37 —
dms. l.c.l., t.l. dlvd E lb .38½- —
tanks dlvd E lb .34½ —

2-Ethyl hexoic acid 1c. higher W. of Rockies.

2-Ethylhexyl acrylate, dms., c.l. t.l., straight or mixed frt alld. E lb. .39½- —
dms., l.c.l., same basis lb. .40½- —
tanks, same basis lb. .37 - —
2-Ethylhexyl alcohol, dms., c.l., dlvd. E lb. .20½- —
dms., l.c.l., dlvd. E lb. .22 - —
tanks, dlvd. E lb. .18 - —
Ethyl iodide chys. works lb 3.30 —
Ethyl methacrylate dms c.l., frt equald lb .52 —
dms., l.c.l. frt equald lb .52½- —
tanks frt equald lb .50 —
Ethyl morphine hydrochloride, USP bots oz.11.85 —
Ethyl oenanthate dms lb 1.05 1.30
Ethyl oxalate (see Diethyl oxalate)
Ethyl silicate dist (see Tetraethyl orthosilicate).
Ethyl silicate 40% available SiO, dms., c.l., dlvd. E lb. .49 - —
dms., l.c.l., dlvd. E lb. .50½- —
tanks, dlvd. E lb. .47 - —
N-Ethyl-a-naphthylamine dms. works lb 1.04 —
N-Ethyl-m-toluidine tech., liq., tanks frt alld lb .83 —
N-Ethyl-o-toluidine, bbls lb .88 —
Ethylamine (see Mono- Di- or Tri-)
N-Ethylaniline dms. c.l. frt alld lb .57 —
dms. l.c.l. frt alld lb .58 —
tanks frt alld lb .55 —
Ethylbenzene 99% dms. c.l., t.l., frt. equald lb .14 —
dms l.c.l., same basis lb .16 —
tanks, same basis lb .11½- —
Ethylene contract refy gate lb .0475- .052
Ethylene dibromide dms. c.l., frt equald lb .30½ —
dms. l.c.l. frt equald lb .31½ —
tanks frt equald lb .28½ —
Ethylene dichloride dms. c.l. dlvd lb 11½ —
dms., l.c.l., same basis lb .13 —
tanks, same basis lb .09 —

Ethylene dichloride prices W. of Rockies, 1c per lb higher

Ethylene glycol indust dms., c.l., dlvd E lb .16 —
dms., l.c.l. same basis lb .17½ —
tanks same basis lb 13½ —
Ethylene glycol monobutyl ether, dms c.l. dlvd E lb 22 —
dms. l.c.l. dlvd E lb 23½ —
tanks, dlvd E lb 19½ —
Ethylene glycol monoethyl ether, dms c.l. dlvd E lb 21 —
dms., l.c.l., dlvd & tanks dlvd E lb 22½ — 18½ —
Ethylene glycol monoethyl ether acetate dms. c.l. dlvd E lb 19½- —
dms., l.c.l., dlvd. E lb. .21 - —
tanks, dlvd E lb 17 —
Ethylene glycol monomethyl ether, dms c.l. dlvd E lb 21 —
dms., l.c.l. dlvd E lb 22½ —
tanks, dlvd E lb 18½ —
Ethylene glycol monomethyl ether acetate, dms., c.l., works lb. .29 - —
dms., l.c.l., works lb. .29¾- —
tanks, works lb. .27 - —

| | | | |
|---|---|---|---|
| Ethylene glycol monostearate, flake, 150-lb. ctn | lb. | .33 | — |
| Ethylene oxide, dms., c.l., dlvd. E. | lb. | .21½- | — |
| dms., l.c.l., dlvd. E. | lb. | .24½- | — |
| tanks, dlvd E | lb. | .15½- | — |
| Ethylene trichloride (see Trichloroethylene) | | | |
| Ethylenediamine, 85-88%, dms., c.l., dlvd. E., 100% basis | lb. | .42 | — |
| dms. l.c.l., dlvd. E., 100% basis. | lb. | .43 | — |
| tanks, dlvd E., 100% basis | lb. | .40 | — |
| Ethylvanillin, 100-lb. fib. dms., 500-lb. | | 6.75 | — |
| less than 500-lb. | lb. | 7.40 | — |
| Eucalyptol, USP, cns., dms | lb. | .85 | 1.40 |
| Eucalyptus oil, NF rectified, 70-75%, dms | lb. | .45 | — |
| NF. rectified, 80-85%, dms. | lb. | .53 | .62 |
| Eugenol, tech., dms | lb. | 0.00 | — |
| USP, dms. | lb. | 1.90 | — |
| Euphorbia herb, bls | lb. | .12 | .15 |

## F

| | | | |
|---|---|---|---|
| F salt paste, tech., dms., works | lb. | 2.50 | — |
| Fennel oil, sweet, USP, cns. | lb. | 2.60 | — |
| Fennel seed, Argentine, bgs. | lb | 16 | — |
| French, light, bgs | lb. | .16 | — |
| Indian, light, bgs | lb. | .17½- | — |
| Rumanian, bgs | lb. | .14 | — |
| Yugoslav light bgs | lb. | .16½- | — |
| Fenugreek seed, Moroccan, bgs | lb. | .09 | — |
| Ferric chloride, anhyd., tech., 350-lb. dms., c.l., works, 100 lbs. | | 8.00 | — |
| dms., l.c.l., works 100 lbs. | | 9.00 | — |
| Indust., cryst., bbls., c.l., works, 100 lbs. | | 5.25 | 6.75 |
| bbls. l.c.l., works 100 lbs | | 5 75 | 7.25 |
| 42° Be., photo grade, cbys., c.l., works 100 lbs. | | 7.25 | 8.25 |
| sewage grade, tanks, frt. equald. 100% basis 100 lbs. | | 4.00 | — |
| USP cryst. dms. t.l., works | lb. | 08½- | — |
| Ferric citrate, gran., dms. | lb. | .86 | — |
| Ferric hypophosphite, NF, 175-lb. dm | lb. | 4.25 | — |
| Ferric naphthenate, liq., 6% Fe, dms. frt alld | lb. | .28¼- | — |
| Ferric oxalate, tech., gran., 50-lb. dm., f.o.b. works E | lb. | 1.30 | — |
| Ferric oxides (see iron oxides) | | | |
| Ferric phosphate NF, soluble, gran. pearls, cs | lb. | .72 | .75 |
| Ferric pyrophosphate, NF VII. soluble, gran. pearls, 225-lb. dm. | lb. | .79 | — |
| Ferric resinate, dms., ton lots, frt. alld | lb. | .45 | — |
| Ferric stearate dms., c.l., frt. alld. | lb. | .39 | — |
| dms., l.c.l., frt alld | lb. | .40 | .44 |
| Ferric sulfate, partly hydrated, bgs., c.l., works | ton. | 35.25 | — |
| bgs., l.c.l., works | ton. | 36.25 | -42.25 |
| bulk, c.l., works | ton. | 33.25 | — |
| Ferric-amonium citrate, NF, brown, gran., 100-lb. dms | lb. | .68 | — |
| NF, green, gran., 100-lb. dms., frt. equald | lb. | .68 | — |
| Ferric-ammonium oxalate, fine gran., dms | lb. | .27½- | .29½ |
| Ferric-potassium oxalate, fine gran., 250-lb dm., f.o.b. works | lb. | .32½- | — |
| Ferric-sodium oxalate, fine gran., dms | lb. | .27½- | .29½ |
| Ferrous gluconate, USP, 200-lb. dm., frt. equald | lb. | .96 | — |
| Ferrous sulfate, gran., bgs., c.l., works | ton. | 34.50 | — |
| bgs., l.c.l., dlvd. Metropolitan area, 100 lbs. | | 3.35 | 4.25 |
| bbls., c.l., works | ton. | 40.00 | — |
| bulk, c.l., works | ton. | 27.00 | — |
| USP cryst., bbls., dms | lb | .09½- | .10 |
| Fir balsam, Canada, bbls. | gal. | 34.00 | -35.00 |
| Oregon bbls | gal. | 3.40 | 4.64 |
| Fir oil, Canada, cns | lb. | 1.70 | 1.75 |
| Fish oil, refd., alkali, dms. | lb. | .1380- | .1430 |
| Kettle-bodied, dms. | lb. | .1530- | .1580 |
| Light-pressed, dms. | lb. | .1280- | .1330 |
| tanks | lb. | .1080- | — |
| Fishliver oil, nat., high potency, 100,000 to 1,500,000 A units per gram, dms 1,000,000 units. | | .12 | — |
| Fishmeal, dom., menhaden, 60% protein, grd., bgs., Atlantic and Gulf coasts | ton. | 108.00 | -110.00 |
| Fishscrap, dom., menhaden, dried, 60% protein, grd., bgs., Atlantic and Gulf coasts. | ton. | 102.00 | -106.00 |
| Fleaseed (see Psyllium seed) | | | |
| Folic acid, USP, bots., fib. dms., kilo lots or more | gram. | .25 | — |
| 10% feed grade fib dms., 3 kilos or more | kilo. | 30.00 | -44.00 |
| Formaldehyde, 37% (inhibited, 12 to 15% methanol), USP, dms., c.l. dlvd | lb. | .0695- | — |
| tanks, dlvd. | lb. | .0405- | — |
| Formaldehyde, methanol-free (uninhibited), tanks, dlvd | lb. | .0375- | — |
| Formic acid 85% cbys. c.l., works. | lb. | .1570- | — |
| cbys., l.c.l., works | lb. | .1620- | .1720 |
| 90%, cbys., c.l., works | lb. | .1625- | — |
| cbys., l.c.l., works | lb. | .1675- | .1775 |
| Fringetree bark, bls | lb. | .65 | .70 |
| Fumaric acid tech. 250-lb. dms., c.l., frt. equald | lb. | 23¼- | — |
| dms., l.c.l., frt equald | lb. | .24¾- | — |
| Fumaric acid in bags ½c. per lb less. | | | |
| Furfural dms. c.l. works | lb. | .13 | — |
| dms. l.c.l., works | lb. | .14 | — |
| tanks, dlvd. E | lb. | .11½- | — |
| tanks, dlvd W | lb. | .12½- | — |
| Furfuryl alconol, cns., works | lb. | .28 | — |
| dms., c.l., t.l., Newark, N. J. | lb. | .19½- | — |
| dms., l.c.l., t.t.l., Newark, N. J. | lb. | .20½- | — |
| dms., c.l., t.l., Memphis, Tenn. | lb. | .18 | — |
| dms., l.c.l., t.t.l., Memphis, Tenn. | lb. | .19 | — |
| tanks, dlvd. E. of Denver | lb. | .173 | — |
| Fusel oil, refd. dms., c.l., dlvd | lb. | .18 | — |
| dms., l.c.l., dlvd. | lb. | .19½- | — |
| tanks, dlvd | lb. | .15½- | — |

## G

| | | | |
|---|---|---|---|
| G salt, bbls., frt. alld., 100% basis | lb. | .73 | — |
| Gallic acid, NF VII, bbls., 1,000-lb. lots | lb. | 2.00 | — |
| bbls. smaller lots | lb. | 2.02 | 2.22 |
| Gallic acid, tech., bbls., 1,000-lb. lots | lb. | 1.78 | — |
| bbls., smaller lots | lb | 1.80 | 2.00 |
| Gamma acid, dry grd., bbls., frt. alld | lb. | 1.75 | — |
| Gammapicoline (see g-picoline). | | | |
| Garlic oil, dom., bots. | oz. | 4.75 | 6.05 |
| Imp., bots. | oz. | 4.50 | 5.00 |
| Gaultheria oil (see Wintergreen oil). | | | |
| Gelatin, edible 75 AOAC test, bbls., c.l., dlvd | lb. | .55 | — |
| 150 AOAC test, bbls., c.l., dlvd. | lb. | .64 | — |
| 200 AOAC test, bbls., c.l., dlvd. | lb. | .70 | — |
| 225 AOAC test, bbls., c.l., dlvd. | lb. | .74 | — |
| 275 AOAC test, bbls., c.l., dlvd. | lb. | .82 | — |
| Gelsemium root, bls. | lb. | .30 | .35 |
| Gentian root, bls. | lb. | .24 | — |
| Grd., bbls., bxs. | lb. | .30 | — |
| Powd., bbls. bxs. | lb. | .30 | — |
| Geraniol, extra cns., dms. | lb. | 1.75 | 2.40 |
| Soap grade, dms. | lb | .90 | 1.75 |
| Standard, cns., dms. | lb. | 1.65 | — |
| Synthetic dms | lb | 1.30 | — |
| Geranium oil, Algerian, cns. | lb. | 19.00 | -22.00 |
| Bourbon, cns. | lb. | 19.00 | -22.00 |
| Turkish (see Palmarosa oil). | | | |
| Geranyl acetate, cns. | lb. | 1.90 | - 2.70 |
| Synthetic, dms | lb. | 1.45 | — |
| Ginger oil, dist., bots. | lb. | 12.00 | -14.00 |
| Ginger oleoresin, NF, from African root, bots. | lb. | 4.25 | - 5.00 |
| NF, from Jamaican root, bots. | lb. | 7.75 | - — |
| Ginger root, Cochin, bgs. | lb. | .19½- | — |
| Jamaican, No. 3, bgs. | lb. | .28 | - — |
| Nigerian, split, bgs | lb. | .20 | - — |
| Sierra Leone, bgs. | lb. | .35 | - — |
| Glauber's salt (see Sodium sulfate). | | | |
| Gluconic acid tech., 50% dms., c.l., t.l., f.o.b. works | lb. | .20 | - — |
| dms., l.c.l., f.o.b. works | lb. | .21 | - — |
| tanks, f.o.b. works | lb. | .17 | - — |
| Glue, bone, extracted, dry bone, 86 jellygrams, bgs., c.l., dlvd. | lb. | .16 | - — |
| 131 jellygrams, bgs., c.l., same basis | lb. | .16½- | — |
| 164 jellygrams, bgs., c.l., same basis | lb. | .18½- | — |
| Glue, bone, extracted, dry bone, 191 jellygrams, bgs., c.l., same basis | lb. | .19½- | — |
| 222 jellygrams, bgs., c.l., same basis | lb. | .21 | - — |
| Glue, bone, green, 40 jellygrams, bgs., c.l., same basis | lb. | .16 | - — |
| 86 jellygrams, bgs., c.l., same basis | lb. | .16 | - — |
| 115 jellygrams, bgs., c.l., same basis | lb. | .16½- | — |
| Glue, bone, green, 135 jellygrams, bgs., c.l., same basis | lb. | .17½- | — |
| 164 jellygrams, bgs., c.l., same basis | lb. | .18½- | — |
| 180 jellygrams, bgs., c.l., same basis | lb. | .19½- | — |
| 200 jellygrams, bgs., c.l., same basis | lb. | .20½- | — |
| Bone glue, l.c.l., prices 2c. higher. | | | |
| Glue, hide, 70-94 jellygrams, bgs., c.l., dlvd | lb. | .18 | - — |
| 95-149, bgs., c.l., dlvd | lb. | .19 | - — |
| 122-149, bgs., c.l., dlvd | lb. | .20½- | — |
| 150-177, bgs., c.l., dlvd | lb. | .22½- | — |
| 178-206, bgs., c.l., dlvd | lb. | .25 | - — |
| Glue, hide, 207-236, bgs., c.l., dlvd | lb. | .28 | - — |
| 237-266, bgs., c.l., dlvd | lb. | .30½- | — |
| 267-298, bgs., c.l., dlvd | lb. | .32½- | — |
| 299-330, bgs., c.l., dlvd | lb. | .34½- | — |
| 331-362, bgs., c.l., dlvd | lb. | .36½- | — |
| 363-394, bgs., c.l., dlvd | lb. | .38 | - — |
| Glue, hide, 395-427, bgs., c.l., dlvd. | lb. | .40 | - — |
| 428-460, bgs., c.l., dlvd | lb. | .42 | - — |
| 461-494, bgs., c.l., dlvd | lb. | .44 | - — |
| 495-529, bgs., c.l., dlvd | lb. | .46 | - — |
| Hide glue, l.c.l., prices 2c. higher. | | | |
| l-Glutamic acid, 99½%, fib. dms., 100-lb. lots, frt. alld | lb. | 1.80 | - — |
| fib. dms., 25-lb. lots, frt. alld. | lb. | 1.88 | - — |
| l-Glutamine, bots., 1-9 kilo lots, | kilo. | 150.00 | -300.00 |
| Bots., 50-kilo lots | kilo. | 100.00 | - — |
| Bots., 500-kilo lots | kilo. | 75.00 | - — |
| Glycerine, dom., nat., crude, saponification, 88%, tanks, dlvd, | lb. | .13½- | .14 |
| nat., crude, soapiye, 80%, tanks, dlvd. | lb. | .12½- | .12¾ |
| nat., refd., USP, CP, 99%, dms., c.l., dlvd. | lb. | .26⅜- | — |
| dms., l.c.l., dlvd | lb. | .27⅜- | — |
| tanks, dlvd. | lb. | .24⅞- | — |
| Glycerine, dom., nat., refd., USP, CP, 96%, dms., c.l., dlvd. | lb. | .25¾- | — |
| dms., l.c.l., dlvd. | lb. | .26½- | — |
| tanks, dlvd. | lb. | .24 | - — |
| nat., high gravity, dms., c.l., dlvd | lb. | .26½- | — |
| dms., l.c.l., dlvd | lb. | .27¼- | — |
| tanks, dlvd. | lb. | .24¾- | — |
| Glycerine, dom., 99.5%, dms., c.l., dlvd. | lb. | .26¾- | — |
| dms., l.c.l., dlvd | lb. | .27½- | — |
| tanks, dlvd. | lb. | .25 | - — |
| Imp., nat., crude, soapiye, 80%, c.l.f. | lb. | Nom. | |
| Glycine (see Aminoacetic acid). | | | |
| Glycerol (see Glycerine). | | | |
| Glycolic acid (see Hydroxyacetic acid). | | | |
| No. 2, 90-95%, bgs., fib. dms., ex whse | lb. | .29 | - .31 |
| Glycolonitrile, 70%, aqueous, dms., c.l., t.l., works | lb. | .40 | - — |
| dms., l.c.l., same basis | lb. | .42 | - — |
| tanks, same basis | lb. | .39 | - — |
| Glyoxal, 30%, dms., c.l., works | lb. | .20½- | — |
| dms., l.c.l., works | lb. | .21¼- | — |
| tanks, works | lb. | .18 | - — |
| Golden seal root, NF, tested, bls. | lb. | 2.90 | - 3.00 |
| Gramicidin, 1 to 5 kilos, f.o.b. works. | gram. | 4.25 | - — |
| Grapefruit oil, dms. | lb. | 2.75 | - 2.90 |
| Graphite, amorp., powd., bgs., fib. dms., ex whse | lb. | .06 | - .09½ |
| Cryst., 88-90%, powd., bgs., fib. dms., ex whse | lb. | .19 | - .21½ |
| 90-92%, powd., bgs., fib. dms., ex whse | lb. | .21 | - .24½ |

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Graphite, 95-97%, powd., bgs., fib. dms., ex whse..lb. .29 - .31½
Graphite, flake, No 1, 90-95%, bgs., fib. drs., ex whse..lb. .29 - .31
Grease, white choice all hog, tanks, dlvd..lb. .08½- —
Yellow, tanks, dlvd. .....lb. .07½- .07⅝
Grease oil, No. 1, dms., c.l., f.o.b. Chicago..lb. .12½- —
dms., l.c.l., same basis.....lb. .14½- —
tankcars, same basis.....lb. .11 - —
Extra winter, strained, dms., c.l., Chicago..lb. .15½- —
dms., l.c.l., same basis.....lb. .17½- —
tankcars, same basis.....lb. .14 - —
Grease oil, prime, burning, dms., c.l., same basis, Chicago..lb. .17½- —
dms., l.c.l., same basis.....lb. .19½- —
tankcars, same basis.....lb. .16 - —
Other areas ¾c. higher, except Texas and West Coast, 1¼c. higher.

**GREEN PIGMENTS**
**Green pigment quotations are listed individually. For example, prices on Green, chrome, may be found in the C's under Chrome green.**

Grindelia robusta herb, bls..lb 40 —
Guaiacol NF crvst, dms, tins lb 2.10 2.15
liq., cbys., dms.....lb. 2.30 - 2.40
Guaiacwood oil cns.....lb .65 .80
Guaiacol carbonate NF VII, dms lb 3.40 3.45
Guar gum, edible, bgs., c.l., f.o.b. shipt. pt lb. .38 - —
bgs., l.c.l. same basis.....lb. .40 - .42
Indust., bgs., c.l., same basis..lb. .32 - —
Tech., bgs., c.l., same basis...lb. .30 - —

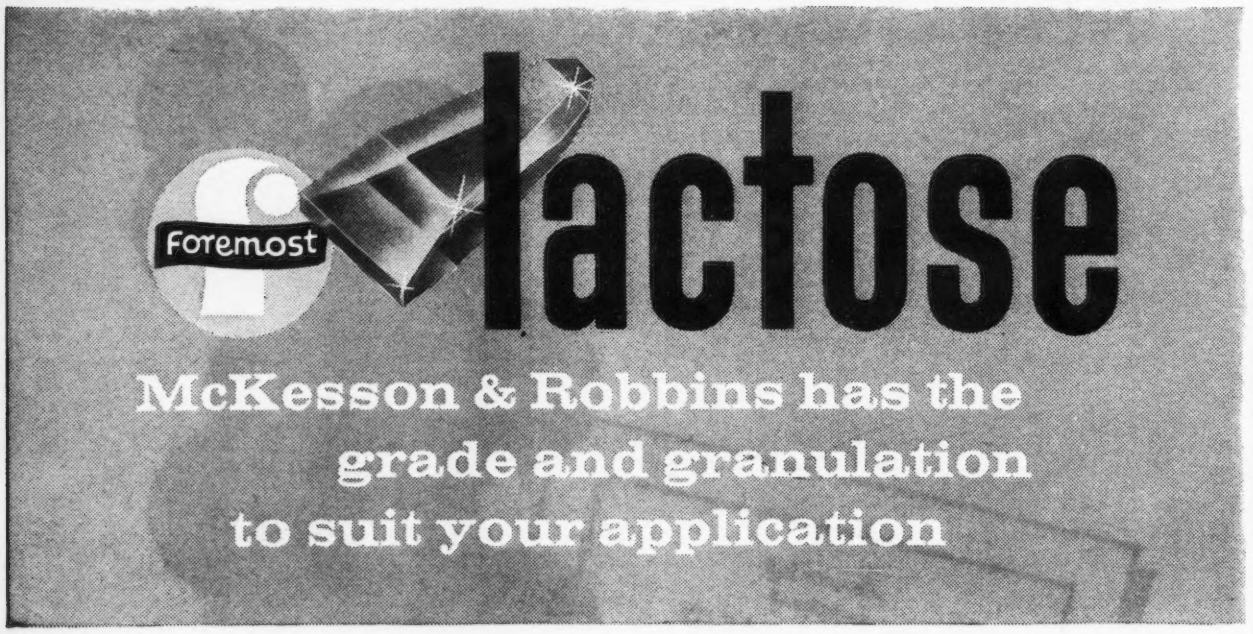
**GUMS**
**Gum quotations are listed individually. For example, prices on Gum, Dammar, may be found in the D's under Dammar gum.**

## H

H acid, dry, bbls., c.l., frt. alld., 100% basis lb. 1.00 - —
bbls., l.c.l., same basis lb. 1.05 - —
Hansa yellow 10 G, bbls., dlvd, E. of Rockies lb 2.45 —
Hansa G yellow, pigment, bbls. lb 2.20 - —
Hawthorn berries, bgs. lb .18 .20
Heliotropin, 100-lb. lots, dms.... lb. 2.60 3.40
Hellebore root, dom., green, bls lb. .70 - .75
Helonias root, bls. ..... lb. 1.50 - —
Hemlock oil, cns. ..... lb. 2.55 3.00
Henbane leaves, bls... .....lb. .40 - .45
Heptachlor, dms., c.l., t.l., frt. alld., 100% basis lb. .96 - —
Heptane, indust., tankcars, New Jersey and New York gal. .20 - —
Houston, Texas ..... gal. .1625- —
Hesperidin, purif., 50 kilos, f.o.b. works kilo.19.70 - —
Hesperidin methylchalcone, 50 kilos, f.o.b. works kilo.49.25 - —
Hexachlorophene, dms., 1,100 lbs. or more lb. 1.84 - —
dms., to 1,100 lbs. ..... lb. 1.94 - —
Hexalin (see Cyclohexanol).
Hexamethylenetetramine, tech., bgs., 20,000-lb. lots or more, Perth Amboy or New York City lb. .233 - —
bgs., 1,000-19,999-lb. lots, same basis lb. .243 - —
bgs., smaller lots, same basis.lb. .253 - —
Hexamethylenetetramine, tech., fib. dms., 1,000-lb. lots or more same basis..lb. .250 - —
fib. dms., smaller lots, same basis lb. .253 - —
USP, bgs., 500 lbs. or more, f.o.b. Fords, N. J., dlvd. New York City and Philadelphia lb. .42½- —
bgs., smaller lots, same basis lb. .43½- .48½
Hexane, industrial, tankcars, New Jersey and New York gal. .20 - —
Houston, Texas ..... gal. .16 - —
1-Hexanol, dms., c.l., works.....lb. .35 - —
dms., l.c.l., works .....lb. .35¾- —
tanks, works ..... lb .33 - —
Hexyl cinnamic aldehyde, dms..lb. 3.95 - 4.00
n-Hexyl methacrylate, dms., c.l., works lb. .75½- —
dms., l.c.l., works..... lb. .76 - —
Hexyl salicylate, dms. .....lb. 1.70 - 1.75
Hexylene glycol, dms., c.l., dlvd lb. .17½- —
dms., l.c.l., dlvd. ..... lb. .19 - —
tanks, dlvd. ..... lb. .15 - —
Hexylresorcinol, USP, dms., 25-lb. lots or more, dlvd lb.14.00 - —
dms., smaller lots, dlvd. lb.14.50 - —
Homatropine hydrobromide, USP, bots oz. 3.25 - —
Homatropine methylbromide, USP, bots oz. 3.00 - 3.25
Hoofmeal, 17-18% ammonia, bulk, c.l., Chicago, unit-ton. 6.75 - —
Horehound herb, bls. .....lb. .18 - .20
Hydrastis (see Goldenseal).
Hydrazine hydrate, 85%, 240-lb. dms., c.l., works..lb. 1.28 - —
240-lb. dms., l.c.l., works. lb. 1.35 - 1.38
Hydriodic acid, purif., 47%, 2-cbys., f.o.b. works lb. 2.92 - —
Hydroabietyl alcohol, tech., solid, dms., c.l., dlvd, zone 1 lb. .29¼- —
dms., l.c.l., dlvd, zone 1 lb. .29¾- .30¼
tanks, dlvd, zone 1.....lb. .27¼- —
Zone 1 for hydroabieyl alcohol comprises all of continental US except Ariz., Calif., Colo., Idaho, Mont., Nev., N. M., Ore., Utah, Wash., Wyo., and the western part of Texas.
Hydrobromic acid, medicinal, 48%, cbys., frt. equald lb. .48 - .56
Hydrochloric acid, anhyd. (see Hydrogen chloride).
Hydrochloric acid, 18°, cbys., c.l., works 100 lbs. 2.50 - —
cbys., l.c.l., dlvd. Metropolitan area 100 lbs. 2.90 - 3.05
tanks, works, frt. equald ton.28.00 - —
20°, cbys., c.l., works 100 lbs. 2.75 - —
cbys., l.c.l., dlvd. Metropolitan area 100 lbs. 3.15 - —
tanks, works, frt equald ton.30.00 - —
22°, cbys., c.l., works....100 lbs. 3.25 - —
cbys., l.c.l., dlvd. Metropolitan area 100 lbs. 3.65 - —
tanks, works, frt equald ton.35.00 - —
Hydrochloric acid CP, USP, consumers, cbys., extra, c.l., works lb. .15¾- —
cbys., l.c.l., same basis lb. .17¼- .17¾
5-pint bots., extra cs., c.l., same basis..lb. .20¾- —
lb. .20¾- —
Hydrocortisone acetate, bulk, bots., kilo lots or more gram. .95 - —
Hydrocortisone alcohol, bulk, bots., kilo lots or more gram. 1.00 - 1.90
Hydrocyanic acid, dilute, NF, 2%, 5-pint bots., f.o.b. works, pint. .70 - —
Hydrofluoric acid, anhyd. (see Hydrogen fluoride)
Hydrofluoric acid, aqueous, 70%, 55-gal. or 30-gal. dms., c.l., t.l., dlvd. 100 lbs.19.25 - —
55-gal. dms., l.c.l., t.l., dlvd 100 lbs.20.75 - —
20-gal. dms., c.l., t.l., dlvd 100 lbs.21.00 - —
20-gal., dms., l.c.l., t.l., dlvd. 100 lbs.22.50 - —
tanks, works frt. equald 100 lbs.13.40 —
Delivered prices apply to all states east of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Washington and Wyoming. In those states add $2.70 per cwt. for drum delivery.
Hydrofluosilicic acid, dms., works, 30% basis lb. .07 - —
Hydrofuramide, dms., fib. ctns., works lb. .30 - .40
50-lb. cyls., l.c.l., works lb. .55 - .60
Hydrogen chloride, anhyd., 50-lb. cyls., l.c.l., works lb. .45 - —
Hydrogen cyanide, liq., 98%, tanks, works lb. .14 - —
Hydrogen fluoride, anhyd., cyls., dlvd, E lb. .30½- .32½
cyls., dlvd W ..... lb. .39 - —
tanks, works ..... lb. .18 - —
Hydrogen peroxide, 35%, dms., c.l., dlvd lb. .202 - —
dms., l.c.l., dlvd. ..... lb. .211 - —
tanks, dlvd. ..... lb. .1800- —
Hydroquinone, photo grade, dms., 50-lbs., f.o.b. works lb. 1.10 - —
Tech., dms., c.l., dlvd. ..... lb. .82½- —
dms., l.c.l. dlvd ..... lb. .84½- —
Hydroquinone monomethyl ether, dms., t.l., dlvd lb. 2.59 - —
dms., l.t.l., dlvd. ..... lb. 2.61 - —
Hydroxyacetic acid, tech., 70% dms., Philadelphia and Chicago lb. .11 - —
tanks, Belle W Va ... lb. .073 —
Hydroxycitronellal, cns. ..... lb. 5.65 - 6.00
Hydroxyethyl cellulose, fib. dms., 20,000-lb. lots or more, f.o.b. shipping point..lb. .74 - —
fib dms. 2,000 to 19,999-lb lots, same basis..lb. .79 - —
fib. dms., 100 to 1,999-lb lots, basis lb. .83 - —
Hydroxyethyl cellulose, fib. dms., smaller lots, same basis.lb. .93 - —
(Highest viscosity [15,000 cps.] grade is 10c. per lb. higher.)
Hyoscine salts (see Scopolamine)
Hyoscyamine hydrobromide, bots.oz. 7.75 8.50
Hyoscyamine sulfate, bots ...oz. 7.75 - 8.50
Hypophosphorous acid, purif., 50%, 10-cbys. f.o.b. works lb. 1.95 - —
NF, 50%, 10-cbys., same basis lb. 1.35 - —

## I

Ichthammol, NF, dms. .... lb. .75 - 1.05
Indigo (see Dyes, coaltar, 1171 indigo, syn.)
Indole, CP, bots.....lb.13.65 -15.00
Inositol, 50-100 lb dms., 1,000 lbs. or more, dlvd. lb 4.50 - —
50-lb. dms., less than 1,000 lb., dlvd lb. 4.75 - —
10 lb cns., 10-50 lbs dlvd lb 5.00 - —
5 lb bots., dlvd lb 5.25 - —
Insect flowers (see Pyrethrum).
Iodine, crude, kgs. .....lb. 1.10 - —
Resub., USP, dms., f.o.b. works.lb. 2.20 - 2.22
Iodochlorohydroquinolin, USP, dms. lb 3.60 - —
Iodoform, NF, dms, 300-lbs., f.o.b. works lb 4.90 - —
dms, 100-lbs., same basis .. lb 5.05 - —
a-Ionone, cns. .....lb 4.60 5.75
b-Ionone, cns. .....lb 4.15 6.15
Ipecac root, whole, bgs.....lb. 8.00 - 8.50
Powd., bbls., bxs .....lb. 9.50 -10.00
Irish moss, bleached, prime, bls. lb. .30 - .32
Iron blue, alkali-resisting, bbls., c.l., dlvd. E lb. .60 - —
bbls. l.c.l. ton lots, same basis. lb. .61 - —
bbls., smaller lots, same basis. lb. .62 - —
Dom., reg. bbls., c.l., dlvd. E lb. .55 - —
alkali-resistant, dom., reg., bbls., c.l., ton lots, same basis lb. .56 - —
bbls. l.c.l. smaller lots, same basis lb. .57 - —
Imp., British, reg., bbls. c.l. dlvd. E lb. .48 - —
bbls., l.c.l., ton lots, same basis lb. .49 - —
bbls., l.c.l., smaller lots, same basis lb. .50 - —
Iron blue dlvd. prices 1c higher for Pacific Coast states: Wash., Ore., Cal., N. M., Ariz., Mont., Wyo., Utah, Col. and Nev.
Iron compounds (see Ferric or Ferrous).
Iron oxide, black, pure, bgs., c.l., works lb. .14¾- —
bgs. l.c.l., works lb. .15 - —
Iron oxide, brown, pure, bgs., c.l., works lb. .14¼- —
bgs., l.c.l., works lb. .14½- —
Iron oxide, metallic, brown, bgs., works lb. .05½- —
Iron oxide, Persian Gulf, red., bgs., c.l., works lb. .08¾- —
Iron oxide, red, dom., pure, bgs., Bethlehem, E. St. Louis, New York City lb. .14¼- —
Iron oxide, red, nat. 75-85% ferric oxide, bgs., c.l., works lb. .06¼- —
bgs., l.c.l., works.....lb. .06½- —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Iron oxide, Spanish red, bbls., e.l., ex dock lb. .05¾ Nom.
bbls., l.c.l., ex dock lb. .06 Nom.
bbls., l.c.l., ex whse, New York lb. .06½ Nom.
Iron oxide, yellow, nat., French type, bgs., c.l., works lb. .06¾- .07
Peruvian type, bgs., l.c.l lb. .023 .024
Iron oxide, yellow, pure, light lemon shade, bgs., c.l., works lb. .12¼- —
other shades, same basis lb. .12 - .12½
Isoamyl alcohol, dms., c.l., works, frt. alld E lb. .27½- —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .25 - —
Isoborneol cns. lb. 1.44 - 1.80
Isobornyl acetate cns lb .46 .56
Isobornyl formate, dms lb. 1.15 - 1.20
Isobornyl propionate, dms lb. 1.20 - 1.25
Isobutyl acetate, perfume grade, cns lb. .30 - .35
Solvent grade, dms., c.l., dlvd, E. of Rockies lb. .15¼- —
dms., l.c.l., same basis lb. .16¾- —
tanks, same basis lb. .12¾- —
Isobutyl alcohol, dms., c.l., dlvd lb. .15½- —
dms., l.c.l., dlvd. lb. .17 - —
tanks, dlvd lb. .13 - —
Isobutylene, 99% tanks, works gal. .38 - —
Isobutyl isobutyrate, dms., f.o.b. works lb. .75 - —
Isobutyraldehyde, CP, dms., c.l., dlvd lb. .27½- —
dms., l.c.l., dlvd. lb. .28½- —
Tech., dms., c.l. dlvd. lb. .22 - —
dms., l.c.l., dlvd. lb. .23½- —
tanks, dlvd. lb. .19½- —
Isobutyric acid, dms, c.l., t.l., dlvd. lb. .35 - —
dms., l.c.l., t.l., same basis lb. .36½- —
t.c. t.t. same basis lb. .33 - —
Isobutyronitrile, dms., c.l., dlvd. lb. .47½- —
dms., l.c.l., dlvd lb. .48½- —
tanks, dlvd lb. .45 - —
Isoeugenol, cns. lb. 3.10 - 3.40
Isoniazid, powd., bulk, 50 kilos kilo. 12.00 - —
Isonicotinic acid, 100-lb fib. dms., works lb. 4.25 - —
Isonicotinic acid hydrazide (see Isoniazid)
Iso-octyl alcohol, dms., c.l., dlvd. E. lb. .20½- —
dms., l.c.l., dlvd. E lb. .22 - —
tanks, dlvd. E lb. .18 - —
Isopentane, coml. grade, tanks, f.o.b. Tex. refy gal. .16½- —
Isophorone, dms., c.l., dlvd lb. .24½- —
dms., l.c.l., dlvd lb. .25¼- —
tanks, dlvd lb. .22½- —
Isophthalic acid, dms., c.l., works, frt. equald lb. .19 - —
dms., l.c.l., same basis lb. .20 - —
Isopropanol (see Isopropyl alcohol).
Isopropyl acetate, dms., c.l., dlvd. lb. .14 - —
dms., l.c.l., same basis lb. .15½- —
tanks, same basis lb. .11½- —
Isopropyl alcohol, refd., 91%, dms., c.l., dlvd gal. .58 - —
dms., l.c.l., dlvd. gal. .68 - —
tanks, dlvd. gal. .42 - —
Isopropyl alcohol, refd., 95%, c.l., dms., dlvd gal. .60 - —
dms., l.c.l., dlvd. gal. .70 - —
tanks, dlvd. gal. .44 - —
Isopropyl alcohol, anhyd., c.l., dlvd. gal. .62 - —
dms., l.c.l., dlvd. gal. .72 - —
tanks, dlvd gal. .46 - —
Isopropyl benzene (see Cumene)
Isopropyl ether, dms., c.l., dlvd lb. .09½- —
dms., l.c.l., dlvd. lb. .11 - —
tanks, dlvd lb. .07 - —
Isopropyl-N-(3-chlorophenyl) carbamate (CIPC) tech., dms., c.l. t.l., works lb. 1.00 - —
dms., l.c.l., works lb. 1.05 - 1.25
tanks, works lb. .99 - —
Isopropylamine (see Mono, Di, or Tri-).
Isopropyl-N-phenyl carbamate, 450-lb fib dms. c.l., t.l., works lb. .75 - —
450-lb fib dms., l.c.l., works lb. .80 - .90
Isoquinoline, dms., works lb. .65 - 1.25
Itaconic acid, refd. bgs. c.l. f.o.b. works lb. .39½- —
bgs., l.c.l., same basis lb. .41 - .43
Tech., bgs., c.l., same basis lb. .34½- —
bgs., 500-lbs. same basis lb. .36 - —

## J

J acid, paste, bbls., works, 100% basis lb 2.70 - —
Powd., bbls., same basis lb. 2.75 - —
Jalap root, NF, bls lb. .55 - .60
NF, powd., bbls., bxs lb. .65 - .70
Japan wax, cs. lb. .29 - .31
Juniper berries, bgs. lb. 16 .17
Juniper berry oil, NF, bots. lb. 2.90 - 3.75
Twice rectified, bots. lb. 3.25 - —
Juniper tar oil, NF, dms. lb. .42 - .60
Juniper wood oil, tech., cns. lb. .38 - .55

## K

Kaolin (see also Clay, China).
Kaolin, NF, powd., fib. dms. lb. .10 - .12
NF, colloidal 50-lb. bgs. lb. .15½- .17½
Karaya gum, No 1, NF, powd., bls lb. .48 .50
No. 2, powd., bbls. lb. .43 .45
No. 3, powd., bbls. lb. .37 .40
Koch acid, bbls, frt. alld., 100% basis lb. 1.00 - —
Kola nuts, bgs. lb. .11 - .12

## L

L acid, bbls., works lb. 1.25 - —
Lacquer diluent, petroleum, 140°F. 200°F. b.r., tankcars, New Jersey and New York gal. .20 - —
Group 3 gal. .15125- —
Houston, Texas gal. .16 - —
200°F-240°F b.r., tankcars, New Jersey or New York gal. .20 - —
Group 3 gal. .14125- —
Houston, Texas gal. .16 - —
Lactic acid, edible, 50%, bbls, dms., c.l., frt. equald lb. .1985- —
bbls., dms., 20 or more, frt. equald lb. .2033- —
bbls., dms., 5 to 19, frt. equald. lb. .2085- —
bbls. dms., 1 to 4, frt. equald. lb .2135- —
80%, bbls., c.l., dms., frt. equald. lb. .3335- —
bbls., dms., 20 or more, frt equald lb. .3385- —
bbls., dms., 5 to 19 frt. equald. lb. .3435- —
bbls. dms., 1 to 4, frt. equald. lb. .3485- —
Plastic grade, 50%, c.l., bbls., works lb. .2740- —
bbls., 20 or more, works lb. .2790- —
bbls. 5 to 19 works lb. 2840- —
bbls., 1 to 4, works lb. .2890- —
80%, bbls., c.l. works lb. 4625- —
bbls., 5 to 19, works lb. .4725- —
bbls., 1 to 4, works lb. .4775- —
Tech., 44%, bbls., c.l., works. 100 lbs. 12.45 - —
bbls., l.c.l., works 100 lbs. 12.85 - —
USP, 85%, cbys. lb. .85 - —
Lactose, crystalline, edible, bgs., 23,000-lb. lots, frt. equald lb. .14 - —
bgs., 6,000-lb. lots, frt. equald lb. .14½- —
bgs., 2,000-lb. lots, frt equald lb. .14¾- —
bgs., 200-lb. lots, frt. equald lb. .15½- —
Edible lactose in fib. dms., ½c. higher.
Lactose, ferment, grade, bgs., c.l., works lb. .08¾- —
Lactose, USP, reg., fib. dms., 30,000-lb. lots, frt. equald lb. .21½- —
fib. dms., 2,000-lb. lots, frt. equald lb. .22¼- —
200-1,880-lb. lots, frt. equald lb. .22¾- —
USP lactose in bags ½c to 1c lower
Lactose, USP, spray dried, bgs., t.l., frt. equald lb. .18½- —
bgs., l.t.l., frt. equald lb. .19 .19¾
Lady's slipper root, bls lb. 3.00 3.50
Lamp black, bgs., c.l., works lb. .16 - .45
Lanolin, USP, anhyd., 400-lb. dms., works lb. .24 - .26
USP, annyd., cosmetic, 400-lb. dms., works lb. .26 - .30
USP, hydrous, 400-lb dms., works. lb. .20 - —
Lard, cash, dms., Chicago lb. .11 - —
Lard oil (see grease oil).
Larkspur seed, bgs. lb. .55 - —
Laurel leaf oil, dms, cns. lb 9.75 - 12.50
Laurent's acid, bbls lb. .87 - —
Lauric acid, pure, dms lb. .30¼- .32¾
bags lb. .28¾- .31¼
tanks lb. .27¾- —
Lauryl alcohol, bots lb. 2.00 2.50
n-Lauryl methacrylate, dms., c.l., t.l., works lb. .65½- —
dms, l.t.l., works lb 66 - —
Lavandin oil, 22-24%, dms. lb. 1.15 - —
Abrial, dms. lb. 1.20 - —
Lavender flowers, medium, bls lb. .55 .60
Ord., bls lb. .20 .25
Select., bls. lb. .90 1.00
Lavender flower oil, USP, French, 35-37% ester, cns lb 1.85 4.00
40-42% ester, cns. lb. 3.50 - 3.65
Spike, Spanish, cns. lb. 1.75 - 2.00
Lead acetate, NF, cryst., gran., powd., bbls. lb. .24¼- —
White, cryst., bbls. lb. .25½- —
gran., bbls. lb. .26½- —
powd., bbls. lb. .26½- —
Lead arsenate, acid powder, dealers, 3-50-lb. bgs. or any quantity, frt. alld. on $150 or more lb. .30½- —
1-lb bgs., same basis lb. .47 - —
Lead, blue, basic sulfate, bbls., c.l., shipt. point, frt. alld lb. .17 - —
bbls., l.c.l., same basis lb. .18 - —
Lead carbonate (see Lead, white, basic carbonate).
Lead chloride, 400-lb. fib. dms. lb. .56 - —
Lead iodide, NF, V jars lb. 3.82 - —
Lead linoleate, fused, 26.5% Pb, dms. lb. .38 - —
Lead metal, prime, pigs, New York. lb. .11 - —
St. Louis lb. .1080- —
Lead monosilicate, bgs., c.l., works, frt. equald lb. .1385- —
bgs., l.c.l., same basis lb. .1485- —
Lead naphthenate, liq., 16% Pb., dms., dlvd lb. .19½- —
24% Pb., dms., dlvd. lb. .24¼- —
Solid, 37% Pb., dms. dlvd. lb .31¾- —
Lead nitrate, tech., cryst., 400-lb. fib. dms lb. .2673- —
Lead orthosilicate gel., 50-60% PbO, dms., works lb. .29¼- .34¼
Lead peroxide, tech. powd., bbls lb. .45 - .50
Lead phthalate dibasic, dms. works, lb. .41 - —
Lead, red, 95% $Pb_3O_4$ or less, bbls., c.l., works, frt. equald. lb. .1373- —
bbls., l.c.l., same basis lb. .1475- —
Lead, red, 97% $Pb_3O_4$, bbls., c.l., same basis lb. .1395- —
bbls., l.c.l., same basis lb. .1495- —
98% $Pb_3O_4$, bbls., c.l., same basis lb. .1410- —
bbls., l.c.l., same basis lb. .1510- —
Lead, resinate, precip., 23%Pb. dms., lb. .49 - —
Lead salicylate, normal dms. works lb. .46 —
Lead silicate (see Lead white basic silicate).
Lead silicochromate, bgs., c.l., f.o.b. mfrs. point, frt. alld lb. .20 - —
bgs., l.c.l., same basis lb 21 - —
Lead sulfate (see Lead blue basic sulfate).
Lead tallate liq. 16% Pb. dms lb. .17¼- —
24% Pb, dms lb. .21¼- —
Solid, 30% Pb. dms lb. .26¾- —
Lead, white, basic carbonate, bgs., c.l., shipt pt., frt. alld lb. .18 - —
bgs. l.c.l. same basis lb. .19 - —
Lead, white, basic silicate, bgs., c.l., shipt. pt., frt. alld. lb. .16½- —
bgs., l.c.l., same basis lb. .17½- —
Lecithin, edible, tech, bleached, non-ret. dms., c.l., works. lb. .14 - .15
non-ret. dms., l.c.l., same basis lb. .15 - .16
unbleached, non-ret. dms., c.l., same basis lb. .13 - .14
non-ret. dms. l.c.l., same basis lb. .14 - .15
Lemon bioflavonoid complex, 50 kilos, f.o.b. works kilo. 14.20 - —
Lemon oil, USP, Calif., cns., dms. lb. 1.80 - 2.65
Messina, cns. lb. 4.00 - 6.50
Lemongrass oil, cns., dms. lb. 2.60 - 2.73

One oil guarantees
full lemon flavor
every single time
It's Exchange Lemon Oil U.S.P., California Cold Pressed. Here is lemon flavor as it should be—full of the aromatic pungency of California's best lemons. And it's uniform—the same, batch after batch. Only the Sunkist Growers, with the world's largest stocks of coastal, highland and desert-grown lemons at their command, could produce an oil with such consistent flavor balance.
Always look for "Exchange" on the tamper-proof container seal—your guarantee it was pressed and packed by the Sunkist Growers. You can depend on it.
Sunkist Growers
Products Sales Department, Ontario, California
Exchange Brand Lemon Oil is distributed in the U.S. by Dodge & Olcott, Inc.; Fritzsche Brothers, Inc.; Ungerer & Co.
Exchange

dl-Leucine, dms., 1 kilo, works . kilo 50.00 - —
Licorice root gran., bls. . . . . lb .13 - —
Powd. bls. . . . . lb .15 - .16
Whole bls. . . . . lb .09 - .10
Lignaloe wood oil, Mexican, cns. lb. 2.75 - 3.50
Lignosulfonate (see under Ammonium or Sodium lignin sulfonate)
Lilac oil . . . . . lb. 1,500.00
Lime, chemical (quicklime), bulk, c.l. 50,000 lbs. works, E . . . . . ton 14.25 - —
Chemical, hydrated, bgs., c.l., same basis . . . . . ton 17.25 - —
spray, bgs., c.l. same basis . . . . . ton 18.25 - —
For New York delivery add $6.29 freight charge
Lime oil, dist., Mexican, dms . . lb. 5.50 - 6.00
West Indian, dms . . . . . lb. 5.50 - 6.00
Expressed, West Indian, dms . lb. 6.50 - 7.75
Lime salts (see Calcium)
Lime-ammonium nitrogen, 20.5% N (see Ammonium nitrate with dolomite).
Linalool ex bois de rose oil dms . . . . . lb 2.45 - 4.25
Syn. 98-100% dms., works . lb 2.40 - 2.75
Linalyl acetate ex bois de rose 90-92% dms . . . . . lb 2.65 - 4.50
96-98% dms . . . . . lb 3.25 - —
Syn., 98-100%, dms., works . lb 2.75 - —
Lindane, 25% formulation, to distributors, dms., frt. alld. . . . . lb. 1.35 - 1.50
99%, tech. to formulators, 250-lb. dms., 5,000 lbs., dlvd . . . . . lb. 2.13 - —
100-lb dms., 5,000-lbs. dlvd . lb 2.15 - —
250-lb. dms., less than 5,000 lbs., dlvd . . . . . lb 2.18 - —
100-lb dms., less than 5,000-lbs. dlvd . . . . . lb 2.20 - —
Linden flowers, with leaves bis . lb. .35 - .40
Without leaves bis. . . . . lb. .42 - .45
Linseed meal, expeller, 32%, bulk, Minneapolis, mills . . . . . ton 60.50 - —
Extracted, 34%, bulk, same basis. . . . . ton 56.00 - —
Linseed oil, raw, dms., c.l., New York . . . . . lb. .1670- —
dms., l.c.l., New York . . . . . lb. .1760- .1810
tanks, f.o.b. Minneapolis . . . . . lb. .1310- —
tanks, New York . . . . . lb. .1422- —
tankwagon, New York . . . . . lb. .1472- —
Boiled linseed oil, .006c. per lb. higher.
Linseed oil acid, dist., dms . . . . lb. .2075- —
Water white, dms . . . . . lb. .2425- —
Litharge, comi., powd., bbls., c.i., works, frt. equald . . . . . lb. .1325- —
bbls., l.c.l., same basis . . . . . lb. .1425- —
Lithium aluminum hydride, lump, dms., works . . . . . lb. 33.00 - 39.00
Lithium benzoate dms . . . . . lb 1.65 - 1.67
Lithium bromide, NF., gran., bgs., works, frt. equald . . . . . lb 2.60 - —
Lithium carbonate, NF, dms., ton lots . . . . . lb. .58 - —
dms., 1,999 lbs. or less . . . . . lb. .64 - —
Tech., dms., ton lots . . . . . lb. .57 - —
dms., 1,999 lbs. or less . . . . . lb. .63 - —
Lithium chloride CP. annyd., dms., ton lots . . . . . lb. 1.23½ - —
Tech. anhyd. dms., c.l., t.l., dlvd. or works, frt alld . . . . . lb. .87 - —
dms. l.c.l. same basis . . . . . lb .88 - .92
Lithium citrate NF dms. ton lots. . . . . lb 1.50 - —
Lithium fluoride, dms., 20,000-lb. lots, dlvd . . . . . lb. 1.75 - —
bbls., ton lots and more, dlvd . lb. 1.85 - —
bbls., less ton lots, dlvd . . . . lb. 1.90 - —
Lithium hydride, powd., dms., 500-lbs lots or more works. . . . . lb 9.50 - —
Lithium hydroxide, monohydrate, dms., c.l., t.l., frt. alld . . . . lb. .60 - —
dms., l.c.l., frt. alld . . . . . lb. .64 - —
Lithium manganite, dms. works . lb. .95 - 1.05
Lithium nitrate tech. dms., 100-lb lots . . . . . lb 1.15 - 1.25
Lithium salicylate dms. works . lb 1.60 - 1.70
Lithium silicate, dms., mesh . . lb 1.10 - 1.20
Lithium stearate dms. c.l., works. . . . . lb. 47½ - —
dms. ton lots works . . . . . lb. 48½ - —
dms. less-ton lots. works . . . lb. 53½ - —
Lithium sulfate dms. 100-lb. lots. . . . . lb 1.15 - 1.25
Lithol red toner barium, bbls., works . . . . . lb. 1.03 - —
Lithol-rubine red toner pure, bbls., works . . . . . lb. 1.65 - —
Resinated, bbls., works . . . . lb 1.47 - —
Lithopone ord. bgs. c.l., dlvd f. . . . . lb .08¾ - —
bgs., l.c.l., dlvd. f. . . . . lb .09½ - —
Titanated (high-strength), bgs., c.l., dlvd . . . . . lb. .11 - —
bgs. l.c.l. dlvd . . . . . lb. .12 - —
Lobelia herb, bls . . . . . lb. .95 - 1.10
Lobeline sulfate bots., 50-oz. lots, works . . . . . oz. 30.00 - —
Locust bean gum powd., bgs. . lb .35 - .40
Lycododium, cs. . . . . lb 2.50 - 3.00
l-Lysine monohydrochloride, 25-lb. dms . . . . . lb 4.95 - —

## M

Mace, Siauw, No. 1, bls. . . . . lb. 1.58 - —
No. 2, whole bls. . . . . lb 1.40 - —
siftings, bls . . . . . lb. 1.35 - —
Mace oil, dist., cns., dms . . . . lb. 9.00 - 11.00
Magnesia, calcined, tech. bgs., ctns., frt equald . . . . . lb. .25¾ - .26½
Tech., syn., rubber grade, light, bgs., c.l. frt equald . . . . lb .28¾ - .30
Magnesia, Calcined, rubber grade, extra light, bgs., c.l., frt. equald . . . . lb. .28 - —
bgs., l.c.l., frt. equald . . . lb .28¾ - —
Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points
Magnesia, calcined, tech., heavy, 85% bgs., c.l., f.o.b. Lunning, Nev . . . . . ton 39.50 - —
91%, bgs., c.l., same basis . . . . . ton 49.50 - —
95%, bgs., c.l. same basis . . . . . ton 59.00 - —
USP, light, bgs. . . . . lb. .36½ - .37½
USP, heavy, bgs . . . . . lb. .36½ - .37½
Magnesite, chemical grade, calcined, powd., bgs., c.l., works, frt equald . . . . . ton 86.25 - —
Magnesite, chemical grade, dead-burnt, standard grain, bulk, c.l., Chewelah, Wash . . . . . ton 46.00 - —
Magnesium bromide, 80-lb. dm., f.o.b. works . . . . . lb 1.15 - —
Magnesium carbonate, tech., bgs., c.l., frt. equald . . . . lb. .11 - —
bgs., t.l., frt. equald . . . . lb. .11½ - —
bgs., l.c.l. frt equald . . . . lb .13½ - .14
USP, bgs., c.l., frt. equald . lb. .13½ - —
bgs. t.l., frt equald . . . . lb .14 - —
bgs., l.c.l. frt equald . . . . lb .15 - 16
Above prices are quoted t.o.b. works, freight equald., with Metropolitan New York and competitive producing points.

Magnesium chloride, anhyd., 92%, flake or pebble, drums., c.l., works . . . . . lb. .12¾ - —
dms., l.c.l., works . . . . . lb. .14 - .15
hydrous, 99%, flake, bgs., c.l., works . . . . . ton 60.00 - —
bgs., l.c.l., works . . . . . ton 75.00 - 100.00
Magnesium gluconate 100-lb. dm., f.o.b. works, E . . . . . lb. 1.42 - —
Magnesium hydroxide, NF, powd., dms., 500-lbs. or more, f.o.b. works . . . . . lb. .24½ - .25½
Magnesium lauryl sulfate, dms., c.l., frt. alld . . . . . lb. .22½ - —
dms., t.l., frt alld. . . . . lb. .23½ - —
tanks, frt. alld. . . . . lb. .21½ - —
Magnesium metal, 99.8%, ingots, 10,000-lb. lots or more, works . . . . . lb .36 - —
Magnesium metal, 98.8%, pigs, 10,000-lb. lots or more, works . . . . . lb. .35¼ - —
sticks, cs., works, same basis . lb. .59 - —
Magnesium nitrate, cryst., dms., works . . . . . lb. .29 - —
Magnesium oxide (see Magnesia, calcined).
Magnesium phosphate, tribasic, NF, bbls . . . . . lb. .75 - —
Magnesium silicate (see Talc).
Magnesium silicofluoride, dms., works . . . . . lb .10½ - .12
Magnesium sulfate, tech., bgs., c.l., works . . . . . 100 lbs. 2.15 - —
bgs, l.c.l., works . . . . . 100 lbs 2.90 - 3.15
USP, cryst., bgs., c.l., works, 100 lbs. 2.35 - —
bgs., l.c.l., 5,000 lbs., 1 withdrawal . . . . . 100 lbs. 3.10 - —
bgs., smaller lots . . . . . 100 lbs. 3.35 - —
Magnesium trisilicate, USP, fib. dms., 5,000-lb. lots lb. .38 - —
fib. dms., 1,000-lb lots . . . . lb. .40 - —
fib. dms., 100-lb lots . . . . . lb. .45 - —
Bulky and super grades of magnesium trisiciate 7c. per lb. higher.
Malachite green, straight, PTA, bbls., works . . . . . lb 5.30 - —
Malathion, dms., c.l., works . . lb. .89 - —
dms., l.c.l., works . . . . . lb. .92 - 1.01
Maleic acid, cryst., powd., dms . lb. .37¼ - —
Maleic anhydride, dms., c.l., frt. equald . . . . . lb. .24 - —
dms., l.c.l., frt. equald . . . lb. .25½ - —
tanks, frt equald . . . . . lb .22½ - —
Maleic anhydride in bags ½c. per lb. less.
Malic acid, tech., dms . . . . . lb .50 - —
Mandelic acid, NF dms., 1,000-lb lots . . . . . lb 2.35 - —
dms, smaller lots . . . . . lb 2.40 - 2.50
Mandrake root, bls. . . . . lb. .45 - —
Manganese acetate, dms., dlvd . lb. .35 - —
Manganese borate, tech., fib. dms. . . . . lb. .23½ - —
Manganese carbonate, chemical grade, 46% Mn, bgs., 20,000-lb lots and more, works lb. .11 - .16
Manganese chloride, CP., anhyd., dms., 20,000-lb lots, works . . . . . lb. .21¾ - —
smaller lots, works . . . . . lb. .23½ - —
Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb. lots, burlap paper lined bgs., gross for net works . . . . ton. 148.00 - —
40,000 to 99,999-lb lots, paper bgs., same basis . . . . ton. 144.50 - —
40,000 to 99,999-lb lots, dms. same basis . . . . ton. 152.50 - —
Prices for manganese dioxide in 10,000 to 40,000-lb lots. $3 per ton higher.
Manganese gluconate, dms . . lb. 1.84 - —
Manganese hydrate, dms., dlvd . lb. .35 - —
Manganese hypophosphite, NF dms. . . . . lb. 3.52 - —
Manganese linoleate, liq. 4.35% Mn, dms . . . . . lb. .35¾ - —
Solid, precip., 8.2% Mn . . . bbls lb. 41¼ - —
Manganese metal, electrolytic, dms., c.l., dlvd. E . . . . . lb. .34½ - —
dms., ton lots, dlvd E . . . . lb. .37 - —
dms., smaller lots, dlvd E . . lb. .39 - —
Manganese naphthenate, liq., 6% Mn, dms., frt alld . . . . lb. .29¾ - —
Manganese resinate, fused, 3½% Mn dms . . . . . lb. 29¼ - —
Precip., 6½-7% Mn, dms . . . lb. .42 - —
Manganese sulfate, fertilizer grade, 65% $MnSO_4$, bgs., c.l., dlvd S. E . . . . . ton. 86.50 - —
bgs., l.c.l. dlvd S. E . . . ton 93.50 - —
Manganese tallate 6% dms . . lb .26½ - —
Manila copal gum, C, bgs . . . . lb. .35 - .39
DBB, bgs. . . . . lb. .24½ - 28
DK, dust, bgs. . . . . lb. .14 - Nom.
MA, soft, bgs. . . . . lb. .20 - .24
WS, bgs . . . . . lb. No stocks.
Mannitol, com'l fib dms., ton lots, works . . . . . lb. .60 - —
fib. dms., to ton lots, works . lb. .62 - —
fib. dms., single dm. works . lb .65 - —
Marine pitch, dms . . . . . lb. .04¼ - .05
MBTS (see Mercaptohenzothiazyl disulfide).
MBT (see 2-Mercaptobenzothiazole).
Melamine, bgs., c.l., works . . lb. .26½ - —
bgs., l.c.l., works . . . . . lb. .28 - —
Menadione, USP, bots. . . . . gram. .044 - .05
Menhaden oil, crude, tanks, works, Atl. & Gulf ports . . . . lb. .06¾ - —
Menthol, nat USP, Brazilian, large crystals, cs . . . . . lb. 8.10 - —
Nat., USP, Brazilian, regular crystals, cs . . . . . lb. 8.00 - —
Japanese, cs. . . . . lb. 10.50 - 12.00
Syn., USP, racemic, 25-lb lots . lb. 4.25 - —
2-Mercaptobenzothiazole, bgs., fib. dms., ton lots, works, frt. alld . . . . . lb. .44 - —
bgs. fib. dms., less ton lots, same basis . . . . . lb. .46 - —
Mercaptobenzothiazyl disulfide, bgs., fib dms., ton lots, works, frt. alld . . . . . lb. .54 - —
bgs. fib dms. less ton lots, same basis . . . . . lb. .56 - —
Mercuric chloride, NF, cryst., dms., 100 lbs., f.o.b works . . lb 4.03 - —
USP, gran or powd., 50-lb dm., 100 lbs. f.o.b works . . . lb 3.78 - —
Mercuric cyanide, NF VIII powd., fib dms . . . . . lb 5.84 - —
Mercuric iodide, red, NF, 100-lb. dm., f.o.b works . . . lb 6.97 - —
Mercuric oxide, red, NF IX 50-lb. dm., 100 lbs. f.o.b works. . . . . lb 4.72 - —
tech., 50-lb dm. 100 lbs., same basis . . . . . lb 4.52 - —
yellow, NF, 50-lb. dm., 100 lbs., same basis . . . . . lb 4.89 - —
tech., dms., 100 lbs . . . . . lb 4.35 - —
25-lb. fib dm . . . . . lb 4.38 - —
Mercurous chloride (see Calomel)
Mercurous iodide, yellow, NF, 100-lb. dm f.o.b works . . lb 8.22 - —
Mercury, ammoniated (see White precipitate, USP XV).
Mercury metal, 76 lbs. per flask, net-flask . . . . . 200.00 - 202.00
Mesityl oxide, dms., c.l., dlvd . . lb. .15 - —
dms., l.c.l., dlvd. . . . . lb. .16½ - —
tanks, dlvd. . . . . lb. .12½ - —
Meta-aminophenol (see m-Aminophenol).
Metachloroaniline (see m-Chloroaniline).
Metanilic acid, dms., works . . . . lb. .57 - .75
Metanitroparatoluidine (see m-Nitro-toluidine).
Metanitroaniline (see m-Nitroaniline).
Metaphenylenediamine (see m-Phenylenediamine).
Metatoluidine (see m-toluidine).
Metatolylenediamine (see 2,4-Tolylenediamine).
Methacrylic acid glacial 98%, dms., truckloads frt equald . . lb. .42½ - —
dms., smaller lots, frt equald, tanks, works, frt. equald lb. .43 - .75
Methanol, nat, denaturing grade, tanks, frt alld gal. .85 - —
Syn., zone 1, dms., c.l., or t.l. min. dlvd gal. .51½ - —
dms., l.c.l., dlvd . . . . . gal. .61½ - —
tankwagon, 2,000-4,000 gal. lots, dlvd Metropolitan area gal. .35 - —
tankwagon, 4,000 gal. min., dlvd gal. .30 - —
tankwagon, 4,000 gal. min., f.o.b. terminal gal. .29 - —
Methanol, syn., zone 2, dms., c.l., or t.l., min. frt. alld. or dlvd, dms., l.c.l., works . . . . . gal. .55½ - —
tankwagon, 2,000-4,000 gal. lots, min., dlvd. Metropolitan area gal. .39 - —
tanks, 4,000 gal. min., dlvd. gal. .34 - —
Synthetic methanol zones are: Zone 1 is all continental US E. of eastern boundaries of Ariz., Idaho and Utah. Zone 2 is remainder of US west of above state boundaries comprising Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
Methapyrilene fumarate, 100-999 lbs., dms., f.o.b works, frt. equald . . . . . lb. 21.75 - —
Methapyrilene hydrochloride, 100-999 lbs., dms., f.o.b. works, frt equald . . . . . lb. 27.25 - —
Methenamine (see Hexamethylene-tetramine).
Methionine hydroxyanalogue, (calcium salt) 90% min., dms., t.l., frt alld. . . . lb 1.10 - —
dms., t.t., same basis . . . . lb 1.16 - —
dl-Methionine, fib dms., frt. alld., 50-lb or more . . . . . lb 3.50 - —
Feed grade, 98% fib dms. same basis . . . . . lb. 1.43 - —
Methoxychlor 50% wettable powder, dealers, dms. cs . . . . lb. .66 - —
Methyl abietate, non-ret dms., c.l., dlvd zone 1 . . . . . lb. .21½ - —
non-ret dms., l.c.l., same basis . . . . . lb. .22 - .22½
Methyl abietate, hydrogenated, non-ret. dms., c.l., dlvd zone 1 . . . . . lb. .23½ - —
non-ret. dms., l.c.l., same basis. . . . . lb. .24 - .24½
Zone 1 includes New England and Middle Atlantic states, Va., W. Va., N. C., Ohio, Ky., Mich., and., Ill. Wis., St. Paul and Minneapolis, Minn.; St. Louis, Mo.; Miss., Ala., Ga., Fla., S. C. and Tenn.
Methyl acetone, nat. dms., t.c.l., E. of Miss. frt alld gal. .62½ - —
Syn., dms., c.l., frt. alld. E. gal. .66 - —
dms., l.c.l., frt. alld. E . . . . gal. .76 - —
tanks frt alld E . . . . . gal. .51 - —
Synthetic methyl acetone E. territory comprises all states East of and including Colo., Mont., N. Mex. and Wyo. West territory is made up of all states west of those four.
Methyl acrylate, dms., c.l., t.l., dlvd. dms., t.t.l., dlvd . . . . . lb. .35¼ - —
tanks, dlvd. . . . . lb. .36¼ - —
Methyl alcohol (see Methanol).
Methyl amyl acetate, dms., c.l., dlvd. E . . . . . lb. .17 - —
dms., l.c.l., dlvd. E. . . . . lb. .18½ - —
tanks, dlvd. E. . . . . lb. .14½ - —
Methyl amyl alcohol, dms., c.l., dlvd. dms., t.c.l., dlvd. . . . . lb. .17 - —
tanks, dlvd. . . . . lb. .18½ - —
Methyl amyl ketone, dms., c.l., t.l., f.o.b. works . . . . . lb. 1.99¼ - —
dms., l.c.l., same basis . . . . lb. 2.00 - —
N-Methylaniline, tech., tanks, frt. alld . . . . . lb. .60 - —
Methylanthranilate, cns. . . . . lb. 2.25 - 2.45
Methyl benzoate, cns., dms. . . lb. .60 - .75
Methyl bromide, service organization prices, 40 to 375-lb. cyls., large lots, frt. alld . . . lb. .62 - .72
on 100 lbs lb. .73 - .79
Methyl cellulose, special vis., (1,500-4,000 cps.) 50-lb. bgs., c.l., works . . . . . lb. .82 - —
50-lb. bgs., 2,000-lb. lots and more, same basis . . . . lb. .89 - —
50-lb. bgs., smaller lots, frt. alld on 100 lbs . . . . . lb. 1.05 - —
Methyl cellulose, standard vis. (15,-400 cps.) 50-lb. bgs., c.l., frt. alld . . . . . lb. .69 - —
50-lb. bgs., 2,000-lb. lots and more, same basis . . . . lb. .76 - —
50-lb. bgs., smaller lots, frt. alld.
Methyl chloride, indust., cyls., frt. equald . . . . . lb. .22¼ - —
tanks, multi-unit, same basis. . . . . lb. .16¼ - —
tanks, single unit, same basis. . . . . lb. .12¾ - —
Methyl chloride, refrigerator mfrs., cyls., dlvd . . . . . lb. .48¾ - —
Other consumers or service men, cyls., dlvd . . . . . lb. .67¾ - —
Methyl chloroform (see 1,1,1-Trichloroethane).
Methyl cinnamate, cns . . . . . lb. 1.55 - 1.80
Methyl ethyl ketone, dms., c.l., works . . . . . lb. .15 - —
dms., l.c.l., dlvd . . . . . lb. .16½ - —
tanks, dlvd. . . . . lb. .12½ - —
2-Methyl-5-ethyl pyridine, dms., c.l., works . . . . . lb. .45 - —
dms., l.c.l., works . . . . . lb. .45¾ - —
tanks, works . . . . . lb. .43 - —
Methyl formate, refd., dms . . lb. .35 - .40
Tech., non-ret. dms., any quantity, works . . . . . lb. .10 - —
tanks, works . . . . . lb. .07 - —
a-D Methyl glucoside, tech., 100-lb. multiwall paper bgs., c.l., works . . . . . lb. .26 - —
100-lb. multiwall paper bgs., t.l., min 23,000 lbs., works. . . . . lb. .27 - —
100-lb. multiwall paper bgs., t.l., works . . . . . lb. .28 - —
Methyl heptin carbonate, bots. . . . lb. 27.25 - 29.00
Methyl p-hydroxybenzoate, fib. dms. . . . . lb 1.90 - 2.00
Methyl ionone, standard, cns., dms. . . . . lb. 3.40 - 3.85
Methyl isoamyl ketone, dms., c.l., dlvd . . . . . lb. .20 - —
dms., t.c.l., dlvd. . . . . lb. .20½ - —
tanks, dlvd. . . . . lb. .17½ - —
Methyl isobutyl carbinol (see Methyl amyl alcohol).
Methyl isobutyl ketone, dms., c.l., dlvd lb. .17 - —
dms., l.c.l., dlvd. . . . . lb. .18¼ - —
tanks, dlvd. . . . . lb. .14½ - —
Methyl methacrylate, dms., c.l., t.l., frt. equald, with Belle, W. Va. . . . . lb. .31 - —
dms., smaller lots, same basis . lb. .31½ - —
tanks, same basis. . . . . lb. .29 - —
Methyl naphthyl ketone, cryst., cns. . . . . lb. 2.45 - 4.30
Methyl parahydroxybenzoate (see p-Hydroxybenzoate).
Methyl parathion, tech., 80%, dms., frt. alld. E. . . . . lb. .84 - —
Methyl parathion prices 2c. per lb. higher in West.
Methyl roseaniline chloride, NF., 5-lb. fib. dms . . . . . lb. 6.90 - —
Methyl salicylate, dms., t.l., frt. alld . . . . . lb. .60¼ - —
dms., l.c.l., same basis. . . . . lb. .62½ - .67½
Methyl testosterone, USP, 100-gram bots gram. No Prices.
2-Methyl-5-vinyl pyridine, 40-dm. lots or more, f.o.b. works . . . lb. 1.32 - —
5-39 dm lots, same basis . . . . . lb. 1.37 - —
tanks, same basis . . . . . lb. 1.27 - —
Methyl violet toner, molybdated, PMA. bbls., dlvd. E. of Rockies . . . . . lb. 2.95 - —
Tungstated, PTMA, bbls., same basis . . . . . lb. 4.35 - —
Methyl violet prices 1c. higher W. of Rockies.
Methylene blue, fib. dms., 100-lb. lots, frt. adjusted . . . . . lb. 4.67 - —
Methylene chloride, tech., straight or assorted, dms., c.l. or t.l., dlvd . . . . . lb. .12½ - —
dms. t.c.l., t.l. dlvd . . . . . lb. .15¾ - —
tanks, 4,000-gal. min., dlvd . . lb. .11¼ - —
b-Methylnaphthalene, 32°C., m.p., dms., works . . . . . lb .90 - —
Methylpentanediol (see Hexylene glycol).
Methylphenylpyrazolone (see 1-phenyl-3-methyl-pyrazolone-5)
Methylthionine chloride (see Methylene blue).
Mica dry-grd. paint, plastic, 100 mesh, bgs., c.l., works . . . lb. .04 - —
roofing, 20 to 80 mesh, works . lb. .03 - —
Mica, wet-grd., biotite, bgs., c.l., works, frt. alld.E . . . . . lb. .06½ - —
bgs. t.c.l., ex-whse. . . . . lb. .07¼ - —
paint or lacq., bgs., c.l., 325 mesh, works, frt. alld E. . . . . lb. .08¼ - —
bgs. t.c.l. ex-whse or freight alld. E lb. .09 - —
Mica, wet-grd., rubber, bgs., c.l., works, frt. alld E . . . . lb. .08 - —
bgs. t.c.l., ex-whse, or frt. alld. E . . . . . lb. .08¾ - —
wallpaper, bgs., c.l., works, frt. alld.E . . . . . lb. .08¾ - —
bgs., ex-whse or frt. alld E. . . . . lb. .09 - —
white, 5-10 microns, bgs., c.l., works, frt. alld. E . . . . lb. .08¼ - —
Mica, wet-grd. W. of Miss. ½c. higher; W. of Rockies 1c higher
Microcrystalline wax, petroleum, coating grades, tankcars, works lb. .10 - .11
laminating grades, tankcars, works lb. .11 - .12
Mineral black bgs. works . . . lb. .0160- .0673
Mineral oil, white tech., 50-65 vis., non ret dms., c.l., t.o.b. refy . . . . . gal. .70 - —
non-ret. dms., l.c.l., same basis . . . . . gal. .75 - —
tankcars, refy. . . . . gal. .54 - —
65-75 vis., non-ret. dms., c.l., same basis . . . . . gal. .70½ - —
non-ret. dms., l.c.l., same basis . . . . . gal. .75½ - —
tankcars, refy. . . . . gal. .54½ - —
Mineral oil, white, NF, 80-90% vis., non-ret. dms., c.l., same basis . . . . . gal. .71 - —
non-ret. dms., l.c.l., same basis . . . . . gal. .76 - —
tankcars, refy. . . . . gal. .55 - —
135-138 vis., non-ret. dms., c.l., same basis . . . . . gal. .77 - —
non-ret. dms., l.c.l., same basis . . . . . gal. .82 - —
tankcars, refy. . . . . gal. .61 - —
145-155 vis., non-ret. dms., c.l., same basis . . . . . gal. .83 - —
non-ret. dms., l.c.l., same basis . . . . . gal. .88 - —
tankcars, refy. . . . . gal. .67 - —
USP, 180-190 vis., non-ret. dms., c.l., same basis . . . . . gal. .85 - —
non-ret. dms., l.c.l., same basis . . . . . gal. .90 - —
tankcars, same basis . . . . . gal. .69 - —
200-210 vis., non-ret. dms., c.l., f.o.b. refy . . . . . gal. .875 - .90
non-ret. dms., l.c.l., same basis . . . . . gal. .925 - —
tankcars, refy. . . . . gal. .69 - .715
340-350 vis., non-ret. dms., c.l., f.o.b. refy . . . . . gal. .92½ - —
non-ret. dms., l.c.l. . . . . gal. .97½ - —
tankcars, refy. . . . . gal. .76½ - —
(For dlvd. N.Y. prices add 2c. for c.l. and 3c. for l.c.l.).
Mineral orange, American, bbls., c.l., works . . . . . lb. .16 - —
bbls., l.c.l., same basis . . . . lb. .17 - —
Mineral spirits, petroleum, odorless, tankcars, New Jersey . . . gal. .29 - —
New York . . . . . gal. .305 - —
Houston, Texas . . . . . gal. .25 - —
regular, tankcars, New Jersey and New York . . . . . gal. .18 - —
Group 3 . . . . . gal. .12875- —
Houston, Texas . . . . . gal. .145 - —
Mineral spirits, 140 F. flash, New York, New Jersey at terminal . . . . . gal. .205 - —
Houston, Texas . . . . . gal. .17 - —
Mink oil, dms . . . . . lb 2.75 - —
Mirbane oil (see Nitrobenzene).
MNPT maroon toner, bgs., c.l., works . . . . . to 6.30 - —
Molasses, blackstrap, feed grade, tanks, New Orleans . . . gal. .14 - .14½
tanks, New York . . . . . gal. .15½ - .16
Molybdated orange, bbls. . . . lb. .49 - —
Molybdenum metal, powd., 80 or 200 mesh, ctns., works . . kilo 7.84 - —
325 mesh, ctns., works . . . kilo 9.13 - —
Molybdenum trioxide, purif., dms., works . . . . . lb. 1.15 - —
Tech. chemical, dms., works, basis Mo content . . . . . lb. 1.48 - —
Tech., metallurgical, dms., works, basis Mo. content . . . . . lb. 1.47 - —
Molybdic acid, 84%, dms., works. . . . . lb. 1.05 - 1.15
Monoallylamine, dms., c.l., dlvd . lb. .965 - —
dms., c.l., dlvd. . . . . lb. .995 - —
tanks, dlvd . . . . . lb. .96 - —
Monobutylamine, dms., c.l., dlvd. E. of Rockies . . . . . lb. .57½ - —
dms., t.c.l., same basis . . . . lb. .59 - —
tanks, same basis . . . . . lb. .55 - —
Mono-tert-butyl-m-cresol, dms., c.l., works . . . . . lb. .55 - —
dms., t.c.l., works. . . . . lb. .56 - —
tanks, works . . . . . lb. .54 - —
Monochloracetic acid, purif. (see Chloroacetic acid, mono).
Monochlorobenzene, dms., c.l., frt. alld. or dlvd. E . . . . lb. .10½ - —
dms., t.c.l., same basis. . . . . lb. .11½ - —
tanks, same basis . . . . . lb. .08¾ - —
Monochlorobenzene prices in the West 1¾c. higher.

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| Monoethanolamine, dms., c.l., divd. E | lb. | .27½- | — |
| dms., l.c.l., same basis | lb. | .29 - | — |
| tanks, same basis | lb. | .25 - | — |
| Monoethylaliphanaphthylamine (see n-Ethyl-a-naphthylamine). | | | |
| Monoethylamine, 70% aqueous, solution, dms., c.l., divd. E, 100% basis | lb. | .38½- | — |
| dms., l.c.l., divd. E., 100% basis | lb. | .40 - | — |
| tanks, divd. E., 100% basis | lb. | .35 - | — |
| Monoethylaniline (see N-Ethylaniline). | | | |
| Monoethylorthotoluidine (see N-Ethyl-o-toluidine). | | | |
| Monoisopropanolamine, dms., c.l., divd. E | lb. | .27½- | — |
| dms., l.c.l., same basis | lb. | .29 - | — |
| tanks, same basis | lb. | .25 - | — |
| Monoisopropylamine, anhyd., dms., c.l., divd | lb. | .33½- | — |
| dms., l.c.l., same basis | lb. | .35 - | — |
| tanks, same basis | lb. | .31 - | — |
| Monomethylamine, anhyd., cyls., l.c.l., frt. equald., 100% basis | lb. | .30 - | — |
| tanks, 100% basis | lb. | .26 - | — |
| 30-35% soln., dms., c.l., frt. equald., 100% basis | lb. | .36 - | — |
| Monomethylamine, 30-35% soln., dms., l.c.l., frt equald, 100% basis | lb. | .36½- | — |
| tanks, frt. equald., 100% basis | lb. | .26 - | — |
| 40% soln., dms. frt. equald., 100% basis | lb. | .33 - | — |
| dms., l.c.l., frt. equald., 100% basis | lb. | .33½- | — |
| tanks, frt. equald, 100% basis | lb. | .26 - | — |
| Monopentaerythritol, tech., bgs., c.l., divd. E | lb. | .31 - | — |
| bgs., l.c.l., divd. E | lb. | .32 - | — |
| Monopotassium glutamate, dms., 1,000-lb lots, frt alld | lb. | 3.05 - | — |
| dms., 100-lb lots, same basis | lb. | 3.25 - | — |
| Monosodium glutamate, dms., divd. | lb. | 1.07 - | 1.15 |
| Monosodium phosphate (see sodium phosphate, monobasic). | | | |
| Montan wax, Calif., refd., bgs | lb. | .27 - | .28 |
| Imp., crude, Bohemian, bgs. | lb. | .25 - | .26 |
| German, bgs. | lb. | .25 - | .26 |
| Morphine, cns., 100-oz., f.o.b. works | oz. | 12.35 - | — |
| Morphine hydrobromide, cns., 100-oz., f.o.b. works | oz. | 9.90 - | — |
| Morphine hydrochloride, NF, cns., 100-oz., f.o.b. works | oz. | 9.90 - | — |
| Morphine sulfate, USP, cns., 100-oz., f.o.b works | oz. | 9.90 - | — |
| Morpholine, dms., c.l., divd. E | lb. | .55¼- | — |
| dms., l.c.l., divd. E | lb. | .56¾- | — |
| tanks, divd E | lb. | .52¾- | — |
| Muriatic acid (see Hydrochloric acid). | | | |
| Musk, syn., ambrette, fib. dms., 100-lb lots | lb. | 4.40 | 4.90 |
| cns., 25-lb lots | lb. | 4.50 | 5.00 |
| Ketone fib. dms., 100-lb. lots | lb. | 4.60 | 5.10 |
| cns., 25-lb. lots | lb. | 4.70 | 5.20 |
| Xylol, fib. dms., 100-lb. lots | lb. | 1.26 - | — |
| cns., 25-lb lots | lb. | 1.40 - | — |
| Mustard seed, Danish, yellow, bgs. | lb. | .10 - | — |
| Montana, yellow, bgs. | lb. | .10½- | — |
| Oriental, bgs. | lb. | .09 - | — |
| Mustard oil, syn., bots. | lb. | 1.60 | 1.85 |
| Myristic acid, bgs. | lb. | .23¼- | .25¾ |
| tanks | lb. | .22¼- | — |
| Myrrh gum, cs. | lb. | .65 - | .75 |

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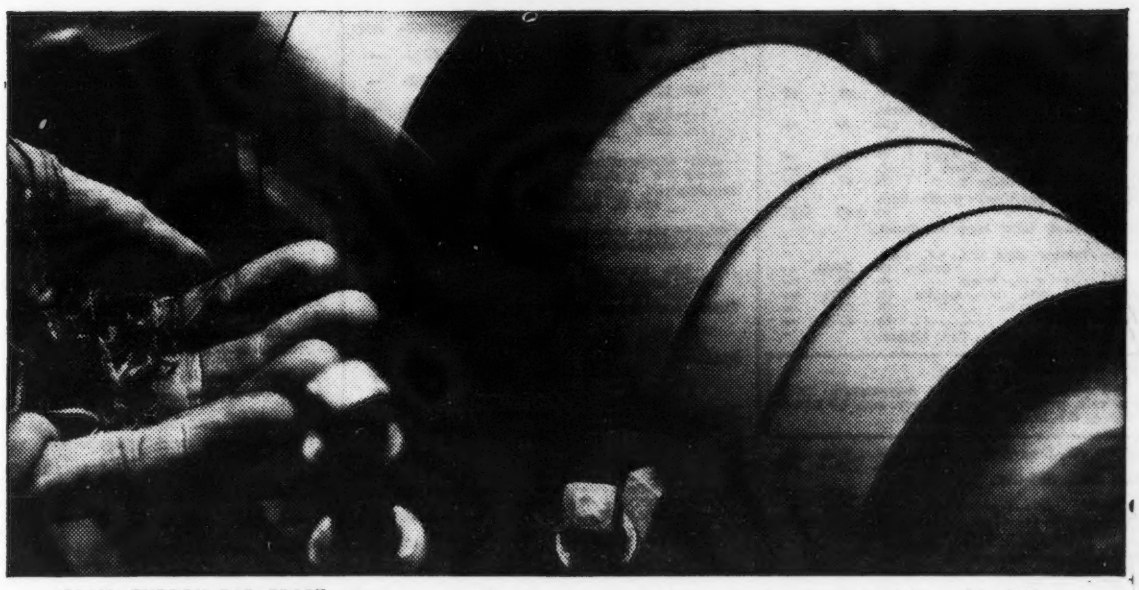
| Naphtha, high solvency (see Solvent naphtha, petroleum). | | | |
| Naphtha, petroleum, cleaner's (see Cleaner's naphtha). | | | |
| Naphtha, VM&P, petroleum, tankcars, New Jersey and New York | gal. | .19 - | — |
| Group 3 | gal. | .13875- | — |
| Houston, Texas | gal. | .155 - | — |
| Naphthalene, crude, dom., 78°, tanks, frt. equald. | lb. | .06¼- | .06½ |
| Refd., indust., chipped, crushed, bgs., frt. equald. | lb. | .14½- | — |
| tanks, same basis | lb. | .11¾- | — |
| Naphthalene, refd., indust., balls, flakes, wholesalers, jobbers, bbls., c.l., same basis. | lb. | .15½- | — |
| cs., 50 lbs. c.l., same basis. | lb. | .15¾- | — |
| 1-lb pkgs. c.l., same basis. | lb. | .18½- | — |
| a-Naphthol, dms., frt. alld | lb. | 1.02 - | — |
| b-Naphthol, tech., flake, bbls., c.l., works | lb. | .34 - | — |
| bbls., l.c.l., works | lb. | .36 - | — |
| Naphthol ITR, red toner, bbls., works | lb | 5.00 - | — |
| 1-Naphthol-3,6-disulfonic 8-amino acid (see H acid) | | | |
| 1-Naphthol-4 sulfonic acid (see Neville and Winther's acid) | | | |
| 1-Naphthol-5-sulfonic acid (see L acid) | | | |
| 1-Naphthol-5-sulfonic 8-amino acid (see S acid) | | | |
| 2-Naphthol-6,8-disulfonic acid (see Gamma acid). | | | |
| Naphthol sulfonic mixed acid (see Cleve's acid) | | | |
| a-Naphthylamine, dms., frt. alld | lb. | .52 - | — |
| b-Naphthylamine tech., flake, bbls., works | lb. | 1.60 - | — |
| 1-Naphthylamine-5-sulfonic acid (see Laurent's acid) | | | |
| 2-Naphthylamine-4,8-disulfonic acid (see Cassella acid). | | | |
| 2-Naphthylamine-1-sulfonic acid (see Tobias acid). | | | |
| 2-Naphthylamine-6-sulfonic acid (see Broenner's acid). | | | |
| 2-Naphthylamine-7-sulfonic acid (see F acid). | | | |
| Naringin, fib dms. | lb. | 8.50 - | — |
| Neatsfoot oil, 15° cold test, dms | lb. | .29 | Nom. |
| 20° cold test, dms. | lb. | .28 | Nom. |
| 30° cold test, dms. | lb. | .27 | Nom. |
| Neocinchophen, USP dms., frt, adjusted | lb. | 7.00 | 8.00 |
| Neomycin sulfate, fib. dms., 1-kilo basis activity | gram. | .25 - | — |
| fib. dms. 100-999-gram lots, basis activity | gram. | .30 - | — |
| Tech., fib. dms. | gram. | .13½- | — |
| Neopentylglycol, dms., c.l., divd | lb. | .32 - | — |
| dms. l.c.l., same basis | lb. | .33 - | — |
| Neroi, dms. | lb. | 4.75 - | — |
| Neroli oil, NF, French, bots. | lb. | 425.00 | 575.00 |
| Tunisian, bots. | lb. | 400.00 | — |
| Nerolin, cns. | lb. | 2.45 | 2.85 |
| Neville and Winther's acid, dms., frt. alld | lb. | 1.50 - | — |
| Niacinamide (see Nicotinamide). | | | |
| Nickel acetate, bbls., divd. | lb. | .68½- | .75½ |
| Nickel carbonate, bbls., divd. | lb. | 78¼- | .85¼ |
| Nickel chloride, bbls., divd. | lb. | .37 - | .45 |
| Nickel formate, bbls., ton lots, frt. alld | lb. | .72 - | .73 |
| Nickel metal, electro cathodes, cs., works | lb | .74 - | — |
| Nickel nitrate, dms., frt. alld | lb. | .31½- | .33½ |
| Nickel oxide, black, bbls. | lb. | .85 - | — |
| Green, bbls. | lb. | .84 - | — |
| Nickel sulfate, bgs., c.l., divd | lb. | .28 - | — |
| bgs., l.c.l., divd. | lb. | .28½- | .36 |
| Nicotinamide, USP, 50-kilo, dms., 100 kilos., divd | kilo. | 5.75 - | 6.50 |
| dms., less than 100 kilos, divd. | kilo. | 6.25 - | 7.00 |
| Nicotinamide hydrochloride, 50-kilo dms., divd | kilo. | 6.50 - | 7.50 |
| Nicotine sulfate, 40%, dealers, 50-lb. dms. frt. alld | lb. | 1.20 - | — |
| 40%, manufacturers, 500-lb. dms., frt. alld | lb. | 1.05 - | — |
| Nicotinic amide, USP (see Nicotinamide). | | | |
| Niger seed, bgs. | lb. | .10¼- | — |
| Nikethamide, cbys. | lb. | 5.00 - | — |
| Nitric acid, 36° Be., cbys., c.l., works E 100 lbs. | | 5.75 - | — |
| cbys., l.c.l., works E 100 lbs. | | 6.05 - | 6.85 |
| 38° Be., cbys., c.l., works E. 100 lbs. | | 6.25 - | — |
| cbys., l.c.l., works E 100 lbs | | 6.55 - | 7.35 |
| 40° Be., cbys., c.l., works E. 100 lbs. | | 6.73 - | — |
| cbys., l.c.l., works E 100 lbs. | | 7.05 - | 7.85 |
| 42° Be., cbys., c.l., works E. 100 lbs. | | 7.25 - | — |
| cbys., l.c.l., works E 100 lbs. | | 7.55 - | 8.35 |
| 58.5 to 68% $HNO_3$, tanks, works, 100% basis 100 lbs. | | 3.90 - | — |
| 94½ to 95½% $HNO_3$, tanks, works, 100% basis 100 lbs. | | 4.90 - | — |
| Nitric acid, CP, NF, consumer, cbys., extra, c.l., works | lb. | .18½- | — |
| cbys., extra, l.c.l., works | lb. | .20 - | — |
| 5-pint bots., extra, cs., c.l., same basis | lb. | .22½- | — |
| 5-pint bots., extra, cs., l.c.l., same basis | lb. | .24 - | .25 |
| dms., frt. alld | lb. | .99 - | — |
| 4-Nitro-2-aminophenol, tech., paste, dms., l.c.l., works | lb. | .64 - | — |
| m-Nitroaniline, cryst., dms., frt. alld | lb | 1.15 - | — |
| Paste, dms., frt. alld., 100% basis | | 1.10 - | — |
| o-Nitroaniline, flaked, dms. t.l., frt. alld | lb. | 49 - | — |
| dms., l.t.l., frt alld | lb. | .51 - | — |
| o-Nitroaniline orange toner, kgs. | lb | 1.50 - | — |
| p-Nitroaniline, c.l., t.l., dms., 20,000 lb min., divd | lb. | .44½- | — |
| dms., l.c.l., same basis | lb. | .46½- | — |
| o-Nitroanisole, tech., tanks, frt. alld. | lb. | .36 - | — |
| p-Nitroanisole, tech., solid, dms., frt alld | lb. | .72 - | — |
| Nitrobenzene, dbl dist., dms., c.l., frt. alld | lb. | .13 - | — |
| dms., l.c.l., frt. alld. | lb. | .14 - | — |
| tanks, frt. alld. | lb. | .12 - | — |
| p-Nitrobenzoic acid, dms., c.l., works | lb. | .63 - | — |
| Nitrocellulose, ester-soluble, 30-35 cps., ¼, ½, ¾, 5-6, 15-20, 30-40, 60-80, 125-175 seconds, bbls., c.l., works | lb. | .37½- | — |
| bbls., l.c.l., same basis | lb. | .33½- | .40½ |
| 18-20, cps., bbls., c.l., same basis | lb. | .39½- | — |
| bbls., l.c.l., same oasis | lb. | .40½- | .42½ |
| 250-400, 600-1,000 seconds, bbls., l.c.l., same basis | lb. | .43 - | .46 |
| Nitrocellulose, spirit soluble, 30-35 cps., ¼, ½ seconds, bbls., c.l., same basis | lb. | .43 - | — |
| bbls., l.c.l., same basis | lb. | .44 - | .46 |
| Nitrocellulose, spirit soluble, 5-6 cps., 40-60 seconds, bbls., c.l. same basis | lb. | .42 - | — |
| bbls. l.c.l., same basis | lb. | .43 | .45 |
| Denatured alcohol used in the manufacture of nitrocellulose is charged extra. Drums extra but returnable | | | |
| o-Nitrochlorobenzene dms. c.l., frt. alld | lb. | .15 - | — |
| dms., l.c.l., same basis | lb | .16 - | — |
| tanks, same basis | lb | .13 - | — |
| p-Nitrochlorobenzene dms. | lb. | .26 - | .27 |
| 2-Nitro-p-cresol, tech. dms., divd | lb | .88 | — |
| Nitroethane, dms., c.l., divd. E | lb. | .28½- | — |
| dms., l.c.l., divd. E | lb. | .30 - | — |
| tanks, divd E | lb. | .26 - | — |
| Nitroethane prices West of Rockies are 1c. higher. | | | |
| Nitrogen solutions, direct application, tanks, f.o.b. works | unit-ton. | 1.64 - | — |
| Manufacturing type, same basis, | unit-ton. | 1.32 - | — |
| Nitrogen tetroxide, indust., tankcars, f.o.b Hopewell, Va | lb. | .065 - | — |
| Cyls., t.l., min. 5 tons, same basis | lb. | .07½- | — |
| Cyls., l.c.l., t.t.l., same basis | lb. | .15 - | — |
| Nitrogenous process tankage, bulk, works | unit-ton. | 4.50 - | 5.00 |
| Nitrogenous sewage sludge, bulk, f.o.b. Chicago, works. | unit-ton. | 3.50 - | — |
| (The foregoing price is per unit $NH_3$, plus 50c. per unit a.p.a., bulk, f.o.b. producers' works, Chicago.) | | | |


# HOW *HERCULES* HELPS...



**SOLID ENERGY FOR SPACE**—Here is a cylinder of Hercules' unique, high-specific impulse propellant being machined to prepare it for physical testing. Although its advanced nitrochemistry delivers highest energy per pound of any solid fuel, it is mechanically durable, tractable, can even (with proper safety precautions) be machined. From this family of cast, composite double-base propellants comes the concentrated chemical energy that powers the second-stage A-2 Polaris motor, the third and fourth stages of the Scout, the final stage of the Minuteman, and others.

**PROMOTE PROGRESS**—New multicolor finishes based on Hercules® nitrocellulose are increasingly being selected by leading interior designers everywhere for a modern decorative look and long-wearing, easy-to-maintain walls. A new motion picture produced by Hercules documents the superior characteristics of this up-to-date paint and outlines its many uses. A print of the motion picture can be obtained from leading suppliers of multicolor finishes or through Hercules.

**MAKE GREENS GREENER**—Hercules Nitroform®, a urea-formaldehyde fertilizer compound, gives excellent initial response after application and continues to release nitrogen steadily throughout the season. This controlled feeding promotes healthier, better-looking turf, eliminates frequent "feast-and-famine" applications that formerly made turf maintenance so difficult.

HERCULES

*HERCULES POWDER COMPANY*
INCORPORATED
*Hercules Tower, 910 Market Street, Wilmington 99, Delaware*

CHEMICAL MATERIALS FOR INDUSTRY

Gd1-4

| | | | |
|---|---|---|---|
| Nitromethane, dms., t.l., dlvd. E | lb. | .26 | — |
| dms., l.t.l., dlvd. E | lb. | .27½ | — |
| Nitromethane prices West of Rockies are 1c higher | | | |
| a-Nitronaphthalene, bbls., frt. alld. | lb. | .31 | — |
| o-Nitrophenol, dms., works, frt. equald | lb. | .94 | — |
| p-Nitrophenol, dms. c.l., frt. alld. | lb | .45 | — |
| dms. l.c.l. frt alld | lb | .47 | — |
| 1-Nitropropane, dms. c.l., frt. alld. E. of Rockies | lb. | .28½ | — |
| dms., l.c.l., same basis | lb. | .30 | — |
| tanks, same basis | lb. | .26 | — |
| 1-Nitropropane prices West of Rockies are 1c per lb higher | | | |
| 2-Nitropropane, dms. c.l., frt. alld. E. of Rockies | lb | .18½ | — |
| dms. l.c.l. same basis | lb | .20 | — |
| tanks, same basis | lb | .16 | — |
| m-Nitrotoluene tech. dms. frt alld. | lb | .50 | — |
| o-Nitrotoluene, dms. c.l., frt. alld | lb | .15 | — |
| dms. l.c.l. frt alld | lb | 16 | — |
| tanks frt alld | lb | .13 | — |
| p-Nitrotoluene, tech., cast, dms., c.l., works | lb. | 27½ | — |
| dms l.c.l. works | lb | 28 | — |
| flake, dms., c.l., t.l., works | lb | 27½ | — |
| dms l.c.l. works | lb | 28 | — |
| m-Nitro-p-toluidine, dms. | lb | 1.25 | — |
| Nonylphenol, dms. c.l. frt. alld | lb | 22½ | — |
| dms., l.c.l. frt. alld | lb. | 23½ | — |
| tanks, frt. alld | lb | .20 | — |
| Nonylphenol prices on shipments to Western States are 2c higher | | | |
| Noscapine, cns. | oz. | 8.00 | — |
| Nutmegs, East Indian, whole, bgs | lb. | 1.18 | — |
| West Indian, bgs | lb | 1.20 | — |
| Nutmeg oil, USP dist., East Indian, cns | lb | 9.00 | 12.00 |
| West Indian, cns. | lb | 9.00 | 12.00 |
| Nux vomica, bls. | lb. | .20 | — |
| Powd., bbls., bxs. | lb. | .20 | .22 |

## O

| | | | |
|---|---|---|---|
| Ocher (see Iron oxide Yellow, nat.). | | | |
| Ocotea cymbarum oil, dms. | lb. | .45 | .47 |
| Octane, indust. tanks, Bayonne, N.J | gal. | .20 | — |
| 1-Octanol, tech., dms. c.l., dlvd., Zone 1 | lb. | 43½ | — |
| dms., l.c.l., dlvd. Zone 1 | lb. | .45½ | — |
| tanks, dlvd., Zone 1 | lb. | .41 | — |
| Octyl alcohol, perfumers grade, bots. | lb. | 1.60 | 3.25 |
| Octyl alcohol, tech. (see 1-Octanol, tech). | | | |
| tert-Octylamine, dms., c.l., t.l., f.o.b. works | lb. | .54½ | — |
| dms., l.c.l., same basis | lb | .55 | — |
| Octylphenol, bgs., c.l., works | lb. | .22½ | — |
| bgs., l.c.l., works | lb | .23 | — |
| tanks, works | lb | .21½ | — |
| Octylphenol in dms., 11c. higher. | | | |

**OILS**

**Oil quotations are listed individually. For example, prices on Oil, coconut, may be found in the C's under Coconut oil.**

| | | | |
|---|---|---|---|
| Oiticica oil, liq., dms | lb. | .15½ | .16 |
| tanks | lb. | .14 | .14¼ |
| Oleic acid, dbl.-dist. (white), dms. | lb. | .19¾ | .22¼ |
| tanks | lb. | .17¼ | — |
| S. D., dms | lb. | .18¾ | .21¼ |
| tanks | lb. | .16¼ | — |
| Oleum (see Sulfuric acid, fuming). | | | |
| Olibanum gum, siftings, cs | lb. | 15 | .20 |
| Tears, cs | lb | 22 | 30 |
| Olibanum oil, bots | lb | 5.00 | 7.65 |
| Extra fine, bots | lb | 8.00 | 9.50 |
| Olive oil, edible, dms., spot, duty paid | gal. | 2.35 | 2.40 |
| Olivine, crude, works | ton | 12.00 | — |
| 20 mesh, works | ton | 15.00 | — |
| 100 mesh, works | ton | 20.00 | — |
| Opium, USP, cns., 25-lbs., f.o.b. works | oz. | 19.20 | — |
| gran. cns. 50 lbs. same basis | oz. | 21.65 | — |
| powd. cns. 50 lbs. same basis | oz | 21.65 | — |
| Orange oil, expressed, USP, Calif., cns. dms | lb | 70 | 90 |
| Calif., sweet, cns. dms | lb. | .60 | — |
| Florida, cns., dms | lb | 0 | 45 |
| Messina, cns | lb | 3.25 | 5.00 |
| West Indian, bitter, cns., dms | lb. | 2.50 | 3.50 |
| Orange peel, bitter, Haitian, bls | lb | 18 | .20 |
| Sweet | lb | 28 | 30 |

**ORANGE PIGMENTS**

**Orange pigment quotations are listed individually. For example, prices on Orange, chrome, may be found in the C's under Chrome orange.**

| | | | |
|---|---|---|---|
| Origanum oil, Spanish, cns | lb | 1.80 | 2.30 |
| Orris root, Florentine, bls | lb | .55 | — |
| powd., bbls., bxs | lb | 65 | — |
| Verona, bls | lb | 35 | — |
| powd., bbls., bxs | lb | 45 | — |
| Orthoanisidine (see o-Anisidine) | | | |
| Orthochlorobenzaldehyde (see o-Chlorobenzaldehyde) | | | |
| Orthochloroaniline (see o-Chloroaniline) | | | |
| Orthochlorobenzoic acid (see o-Chlorobenzoic acid) | | | |
| Orthochloroparanitroaniline (see 2-Chloro-4-nitroaniline) | | | |
| Orthochlorophenol (see o-Chlorophenol). | | | |
| Orthocresol (see o-Cresol) | | | |
| Orthocresotinic acid (see 2,3-Creosotic acid) | | | |
| Orthodichlorobenzene (see o-Dichlorobenzene). | | | |
| Orthonitroaniline (see o-Nitroaniline). | | | |
| Orthonitrochlorobenzene (see o-Nitrochlorobenzene). | | | |
| Orthonitroparachlorophenol (see 2-Nitro-4-Chlorophenol) | | | |
| Orthonitrophenol (see o-Nitrophenol). | | | |
| Orthonitrotoluene (see o-Nitrotoluene). | | | |
| Orthophenetidine (see o-Phenetidine) | | | |
| Orthophenylphenol (see o-Phenyl phenol) | | | |
| Ortho-tertiary amylphenol (see o-tert-Amylphenol) | | | |
| Orthotolidine (see o-Tolidine base) | | | |
| Orthotoluidine (see o-Toluidine) | | | |
| Ouabain, USP, bots. | gram | 3.00 | 4.00 |
| Ouricury wax, crude, bgs. | lb. | .50 | Nom. |
| Refd., pure, bgs | lb. | .54 | .55 |
| Oxalic acid, bgs., c.l., works | lb. | .18 | — |
| bgs., 10,000-lb. lots, works | lb. | .19 | — |
| bgs., smaller lots, works | lb. | .20½ | — |
| Oxalic acid in drums is priced ½c. per lb higher. | | | |
| b-Oxynaphthoic acid, pigment manufacture, dms., frt. alld | lb. | .912 | — |
| Dyestuff manufacture, dms., same basis | lb | 1.03 | 1.14 |
| Oxyquinolin sulfate, cns., 100-lb. lots, works | lb. | 4.75 | 5.00 |
| cns., smaller lots, works | lb. | 4.92 | 5.17 |

## P

| | | | |
|---|---|---|---|
| Palm oil, clarif., dms | lb. | .14¾ | .15¾ |
| tanks | lb. | .12 | — |
| Palm oil acid, double dist., dms. | lb. | .16 | .18½ |
| tanks | lb. | .13½ | — |
| single dist., dms | lb. | .15½ | .18 |
| tanks | lb. | .13 | — |
| Palmarosa oil, cns | lb. | 4.90 | 6.00 |
| Papain, powd., bots. | lb. | 3.25 | 10.00 |
| Papaverine hydrochloride, nat. or syn., USP, cns., 25-oz. to 100-oz. lots | oz. | 5.00 | — |
| cns., smaller lots | oz. | 5.05 | 5.20 |
| Papaverine sulfate, nat. or syn., USP, cns | oz | 7.10 | 7.35 |
| Paprika, Bulgarian, bgs. | lb. | .32 | — |
| Hungarian, bgs. | lb. | .33 | — |
| Spanish, bgs | lb | .30 | — |
| Yugoslavian, bgs. | lb. | .38 | — |
| Para-aminobenzoic acid (see p-Aminobenzoic acid) | | | |
| Parachlorobenzoic acid (see p-Chlorobenzoic acid) | | | |
| Paramethylphenylcinchonic acid (see Neocinchophen). | | | |
| Paranitrobenzoic acid (see p-Nitrobenzoic acid). | | | |
| Paratoluidinemetasulfonic acid (see p-Toluidine-m-sulfonic acid). | | | |
| Para-aminophenol (see p-Aminophenol). | | | |
| Parachlorophenol (see p-Chlorophenol). | | | |
| Parachloro-orthonitroaniline (see 4-Chloro-2 nitroaniline). | | | |
| Para-anisidin (see p-Ansidine) | | | |
| Parachloraniline (see p-Chloraniline). | | | |
| Parachlorobenzaldehyde (see p-Chlorobenzaldehyde). | | | |
| Paracresol (see p-Cresol) | | | |
| Paradibromobenzene (see p-Dibromobenzene). | | | |
| Paradichlorobenzene (see p-Dichlorobenzene). | | | |
| Para toner, red, bbls | lb. | 1.30 | — |
| Chlorinated, kgs. | lb. | 1.41 | — |
| Paraffin, crude, scale, white, 123°-127°F., ASTM, tanks, refy. | lb. | .0655 | .0660 |
| fully refd., 122°-124°F., ASTM, | lb. | .0765 | — |
| 125°-127°F., ASTM, tanks, refy. | lb. | .0765 | — |
| 130°-132°F., ASTM, tanks, refy. | lb. | .0765 | — |
| 132°-134° F., ASTM, tanks, refy. | | | |
| 135°-137° F., ASTM, tanks, refy | lb. | .0765 | — |
| AMP temperatures are an arbitrary 3°F higher than ASTM | | | |
| Paraffin oil, pale, 100-110 vis., at 100°F., tanks, east coast, refy | gal. | .14 | — |
| Paraffin wax (see Paraffin) | | | |
| Paraformaldehyde 91% flake, bgs., c.l., frt. alld | lb. | .10 | — |
| bgs., l.c.l., frt. alld | lb. | .12 | .13 |
| 91%, powd., bgs., c.l., ex whse. | lb. | .1715 | — |
| bgs., l.c.l. ex whse | lb. | .1865 | — |
| Paraformaldehyde, USP-X, fib. dms., c.l | lb. | .19 | — |
| fib dms., 1,000-lb. lots | lb. | .20 | — |
| fib dms., smaller lots | lb. | .21½ | — |
| Paraldehyde, tech., 98%, 55-gal. dms., t.l., dlvd. E | lb. | .14 | — |
| 55-gal. dms., l.c.l., dlvd. E | lb. | .15½ | — |
| tanks, dlvd. E | lb. | .11½ | — |
| Paranitroaniline (see p-Nitroaniline). | | | |
| Paranitrochlorohenzene (see p-Nitrochlorohenzene) | | | |
| Paranitrotoluene (see p-Nitrotoluene). | | | |
| Paranitrophenol (see p-Nitrophenol). | | | |
| Paraphenetidine (see p-Phenetidine) | | | |
| Paraphenylenediamine (see p-Phenylenediamine). | | | |
| Paraphenylphenol (see p-Phenylphenol) | | | |
| Para-tertiary-amylphenol (see p-tert-Amylphenol) | | | |
| Para-tertiary butylphenol (see p-tert-Butylphenol) | | | |
| Parathion, ethyl, dms. frt alld | lb. | .84 | — |
| Parathion prices 2c. per lb higher in West. | | | |
| Paratoluenesulfonamide (see p-Toluenesulfonamide). | | | |
| Passion flower herb, bls | lb | .35 | 40 |
| Patchouli oil, imp., cns. | lb. | 5.60 | 6.50 |
| Peach kernel oil, USP (see Apricot kernel oil). | | | |
| Peacock blue, fugitive, 100% color strength, 250-lb. bbls., dlvd. E of Rockies | lb | 1.00 | — |
| Peacock blue price 1c higher W of Rockies. | | | |
| Peanut meal, old process, 45% bgs., f.o.b., mills | ton. | 68.00 | Nom. |
| solvent, same basis | ton. | 64.00 | Nom. |
| Peanut oil, crude tanks, f.o.b. mills | lb. | .15 | — |
| Refd., dms. | lb. | .20½ | .20¾ |
| tanks | lb. | .18½ | — |
| Pectin, dom., NF, citrus, powd., 100 kilos, f.o.b. shipt. pt. | kilo | 4.52 | — |
| Pelargonic acid, dms., c.l., dlvd. E. | lb. | .27½ | — |
| ton lots, same basis | lb. | .28½ | — |
| tanks, same basis | lb. | .25 | — |
| Penicillin, potassium, cryst., bulk, 1,000,000 units. | | .018 | — |
| Penicillin, procaine, cryst., bulk, 1,000,000 units. | | .020 | — |
| Pennyroyal oil, USP, imported, cns. | lb. | 2.35 | 2.80 |
| Pentachlorophenol, 50-lb. bgs., c.l., t.l., works, frt. equald | lb. | .21 | — |
| bgs., less than ton-lots, same basis, | lb | .29 | — |
| bgs., c.l., t.l., 2,000 lb. minimum, same basis | lb. | 22½ | — |
| Pentachlorophenol in dms. 1c. higher. | | | |
| Pentaerythritol, tech., bgs., c.l., dlvd | lb. | .31 | — |
| bgs., l.c.l., dlvd. | lb | 32 | — |
| Pentaerythritol, di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol). | | | |
| Pentane, indust., tanks, Tex refy. | gal. | .14 | — |
| Pentobarbital, dms., 100 lbs. or more | lb. | 6.00 | — |
| Pepper, black, Malabar, bgs. | lb. | .45½ | — |
| Lampong, bgs. | lb. | .45½ | — |
| Red Funtuas, bgs. | lb. | .32 | — |
| Japanese Hontoka, bgs. | lb | .37½ | — |
| Santaka, bgs. | lb. | 31½ | — |
| Sudanese, bgs | lb. | .36 | — |
| White, Muntok, bgs | lb. | .55 | — |
| Peppermint leaves, dom., USP, bls., dms | lb. | No stocks. | |
| imp., USP, dms. | lb. | .85 | .90 |
| Peppermint oil, nat., dms. | lb. | 4.40 | — |
| Redist., USP, dms. | lb. | 4.65 | — |
| Perchloroethylene, dms. c.l., or t.l., dlvd | lb. | .13½ | — |
| dms., l.c.l., dlvd. | lb. | .15¼ | — |
| tanks, dlvd | lb. | .11¾ | — |
| tanktruck, 1,000 gal. min. dlvd | lb | 12¼ | — |
| Peri acid, dry, bbls., frt. alld | lb | 1.60 | — |
| Paste, bbls. frt. alld | lb | 1.55 | — |
| Peru balsam, dms | lb | 1.15 | 1.50 |
| Persic oil, USP (see Apricot kernel oil). | | | |
| Petitgrain oil, South American, cns., dms | lb. | 2.30 | — |
| Petrolatum, NF, cream, dms., c.l., refy. | lb. | .085 | .08625 |
| dms., l.c.l., dlvd. | lb. | .11125 | .11250 |
| tanks, refy. | lb. | .0625 | .06375 |
| NF, extra amber, dms., c.l., refy. | lb. | .07625 | — |
| dms., l.c.l., dlvd. | lb. | .1025 | — |
| tanks, refy. | lb. | .05375 | — |
| NF, soft yellow, dms., c.l., refy | lb. | .07625 | — |
| dms., l.c.l., dlvd. | lb. | .1025 | — |
| tanks, refy. | lb. | .05375 | — |
| USP, lily white, dms., c.l., refy. | lb. | .09125 | .09675 |
| dms., l.c.l., dlvd. | lb. | .1175 | .1225 |
| tanks, refy. | lb. | .08875 | — |
| USP, snow white, dms., c.l., refy. | | .09625 | — |
| dms., l.c.l., dlvd. | lb. | .1225 | — |
| tanks, refy. | lb. | .07375 | — |
| Full tankwagons of petrolatum are ¼c. more per lb. than tankcars. | | | |
| Petroleum pitch (see Asphalt, petroleum). | | | |

**PETROLEUM PRODUCTS**

**Petroleum product quotations are listed individually. For example, prices on Petroleum, mineral spirits, may be found in the M's under Mineral spirits, petroleum.**

| | | | |
|---|---|---|---|
| Petroleum sulfonate, oil soluble, 60-62% sulfonic content, non-ret. dms., c.l., works. | lb. | .16½ | .18¾ |
| non-ret. dms., l.c.l., works | lb. | .17½ | .19 |
| tanks, works | lb. | .14½ | .17 |
| 50-55% sulfuric content, non-ret. dms., c.l., works | lb. | .16 | — |
| non-ret. dms., l.c.l., works | lb. | .17 | — |
| tanks, works | lb. | .13 | — |
| o-Phenetidine, dms., c.l., frt. alld, E | lb | .91 | — |
| dms., l.c.l., same basis | lb. | .93 | — |
| p-Phenetidine, dms., c.l., frt. alld. | lb | 1.05 | — |
| dms. same basis | lb | 1.08 | — |
| Phenobarbitol, USP, dms., 100-lbs., frt. alld | lb. | 3.25 | — |
| Phenobarbital-Sodium (see sodium phenobarbital). | | | |
| Phenol, 90-92% (cresol 8-10%), non-ret. dms., frt. alld E. of Rockies | lb. | .17¼ | — |
| non-ret. dms., l.c.l., same basis. | lb. | .18¼ | — |
| tanks, same basis | lb. | .15¼ | — |
| 82-84% (cresol 16-18%), non-ret. dms., c.l., same basis | lb. | .17 | — |
| non-ret. dms., l.c.l., same basis. | lb. | .18 | — |
| tanks, same basis | lb. | .15 | — |
| 39°C., or above, tar dist., non-ret. dms., c.l., same basis | lb. | .18½ | — |
| non-ret. dms., l.c.l. | lb. | .19½ | — |
| tanks, same basis | lb. | .16½ | — |
| Phenol, USP, syn., dms., c.l., t.l., frt. alld | lb. | .19 | — |
| dms., l.c.l., same basis | lb. | .21 | — |
| tanks, same basis | lb. | .17 | — |
| Phenolphthalein, USP or yellow, 250-lb. dm., 2,000 lbs., frt. alld | lb. | 1.30 | — |
| 250-lb dm., same basis | lb | 1.35 | — |
| Phenothiazine drench, fib dms., t.l., dlvd | lb. | .46 | — |
| fib. dms., ton lots, dlvd | lb. | .49 | — |
| NF, fib. dms., t.l., dlvd | lb. | .45 | — |
| fib. dms., ton lots, dlvd | lb. | .48 | — |
| Phenyl acetate, dms., 100-lb. lots, works | lb. | .50 | — |
| Phenyl salicylate (see Salol) | | | |
| Phenylacetaldehyde, soln., 50%, bots | lb. | 2.15 | 2.35 |
| 100%, bots. | lb. | 3.80 | 4.00 |
| Phenylacetic acid, pure, cryst., cns | lb. | 1.25 | 1.75 |
| di-Phenylalanine, dms., 1-kilo | kilo. | 65.00 | — |
| l-Phenyl-3-carbethoxy pyrazolone-5, fib dms., 200-lb lots, dlvd. E | lb. | 3.45 | — |
| fib dms., smaller lots, dlvd E | lb. | 3.80 | — |
| N-Phenyldiethanolamine, dms., c.l., dlvd E | lb. | .50 | — |
| dms., l.c.l., dlvd. E | lb. | .51½ | — |
| tanks, dlvd. E | lb. | .47½ | — |
| m-Phenylenediamine, dms., c.l., t.l., frt. alld | lb. | 1.08 | — |
| l.c.l., l.t.l., same basis | lb. | 1.10 | — |
| o-Phenylenediamine, comi, fib, dms, 100 to 1,000 lbs., works. | lb. | 1.70 | 1.80 |
| p-Phenylenediamine, tech., dms, works | lb. | 1.55 | — |
| Phenylethanolamine, dms., c.l., works | lb. | .75½ | — |
| dms., l.c.l., same basis | lb. | .76¼ | — |
| Phenylethyl acetate, bots. | lb. | 1.25 | 1.40 |
| 2-Phenylethyl alcohol, extra, dms. | lb. | 1.14 | 1.50 |
| Standard, dms | lb | 1.10 | 1.60 |
| b-Phenylethylamine, dms., 20,000 lbs. or more, frt. alld | lb. | 1.50 | — |
| dms, smaller lots, frt alld | lb | 1.70 | 1.85 |
| Phenylethylphenyl acetate, bots | lb. | 4.00 | 4.25 |
| Phenylglyconic acid (see Mendelic acid). | | | |
| Phenylhydrazine 97%, 450-lb dms. | lb. | 1.45 | — |
| 1-Phenyl-3-methyl pyrazolone-5, fib. dms., 250-lb. lots, dlvd. E. | lb. | 1.80 | — |
| fib dms. smaller lots, dlvd E | lb. | 2.10 | — |
| o-Phenylphenol, dms., l.c.l., works. | lb. | .48 | .50 |
| p-Phenylphenol, bgs., c.l., works | lb. | .38½ | — |
| bgs., l.c.l., works | lb. | .43 | — |
| Philippine copal gum, pale, chips, bgs | lb. | .23¼ | .27 |
| nubs, bgs. | lb. | .33¼ | .37 |
| seeds, bgs. | lb. | .20 | Nom. |
| sorts, bgs. | lb. | .20 | .24 |
| Phloroglucinol, comi., fib dms., works | lb | 6.40 | — |
| CP, bots., works | lb. | 17.75 | — |
| Tech., fib dms. works | lb. | 10.45 | — |
| Phloxin red toner (see Eosin red toner). | | | |
| Phosgene, ret. cyls., works | lb. | .15½ | — |
| Phosphate defluorinated (see under D). | | | |
| Phosphate rock, Curacao, Atlantic ports, New Orleans | ton. | 46.50 | — |
| Phosphate rock, Florida, land pebble, run-of-mine, washed, dried, unground, 66-68%, b.p.l., bulk, c.l., mines. | short-ton. | 4.989 | 5.398 |
| 68-70%, b.p.l., bulk, c.l., same basis | short-ton. | 5.849 | 5.858 |
| 70-72%, b.p.l., bulk, c.l., same basis | short-ton. | 6.429 | 6.438 |
| Phosphate rock, Florida, land pebble, run of mine, washed, dried, unground, 74-75%, b.p.l., bulk, c.l., same basis. | short ton. | 7.329 | 7.338 |
| 76-77%, b.p.l., c.l., bulk, same basis | short-ton. | 8.219 | 8.228 |
| Above Florida prices are based on fuel oil at 2.52 per bbl. and labor at $1.64. | | | |
| Phosphoric acid, food grade, 75%, cbys., c.l., works, E., frt. equald | 100 lbs. | 7.00 | — |
| cbys., l.c.l., same basis | 100 lbs. | 7.25 | 7.75 |
| tanks, t.w., works | 100 lbs. | 5.60 | — |
| 80% cbys., c.l. frt equald | 100 lbs. | 7.85 | — |
| cbys., l.c.l., works | 100 lbs. | 8.10 | 9.35 |
| tanks, t.w., works | 100 lbs. | 6.00 | — |
| NF 85%, cbys., c.l., works. | 100 lbs. | 8.50 | — |
| cbys., l.c.l., works | 100 lbs. | 8.75 | 9.00 |
| tanks, t.w., works | 100 lbs. | 6.65 | — |
| Phosphorus, amorph., red, dms., t.l., works | lb. | .55 | — |
| dms., smaller lots, works | lb. | .56 | .57 |
| white (yellow), solid, dms., c.l., works, frt. equald | lb. | .20 | .20½ |
| dms., l.c.l., works, frt. equald | lb. | .21½ | — |
| tanks, works, frt. equald | lb. | .19 | — |
| Phosphorus oxychloride, dms., c.l., works | lb. | .14 | — |
| dms., l.c.l., works | lb. | .15 | — |
| tanks, works, frt. equald | lb. | .12½ | — |
| Phosphorus pentasulfide, powd., dms., c.l., works | lb. | .13½ | — |
| dms., l.c.l., works | lb. | .14½ | .15½ |
| Solid, dms., c.l., works | lb. | .11½ | — |
| dms., l.c.l., works | lb. | .12½ | .13½ |
| Phosphorus pentoxide, dms., c.l., works | lb. | .1375 | .1475 |
| dms., l.c.l., works | lb. | .1475 | .1675 |
| Phosphorus sesquisulfide, dms., cs., c.l., works | lb. | .38 | — |
| dms., l.c.l., works | lb. | .39 | .40 |
| Phosphorus trichloride, dms., c.l., works | lb. | .14 | — |
| dms., l.c.l., works | lb. | .15 | — |
| tanks, works | lb. | .12½ | — |
| Phthalic anhydride, bgs., c.l., works, frt. equald | lb. | .20 | — |
| bgs., l.c.l., same basis | lb. | .21 | — |
| tanks, same bsais | lb. | .19½ | — |
| Phthalimide, 97-98%, dms., frt. alld | lb. | .65 | — |
| Phthalocyanine blue, full strength, bbls., dlvd. E. of Rockies. | lb | 2.90 | — |
| Resinated, bbls., same basis | lb | 2.75 | — |
| Water dispersable, bbls., same basis | lb | 1.52 | — |
| Phthalocyanine blue prices 1c. higher W of Rockies. | | | |
| Phthalocyanine green toner, bbls., works | lb | 3.35 | — |
| Resinated, bbls. | lb | 3.00 | — |
| Water dispersable, bbls. | lb | 1.71 | — |
| Phthalocyanine green prices 1c. higher W of Rockies | | | |
| Phthalylsulfacetamide, fib. dms., 1-000-lb. lots or more | lb | 5.00 | — |
| NF, fib. dms. | lb | 5.20 | — |
| a-Picoline, dms. c.l., works, frt. equald | lb. | .46 | .48 |
| dms., l.c.l., works, frt. equald | lb. | .46½ | .49 |
| tanks, same basis | lb. | .43 | .46 |
| b-Picoline, 98% dms., t.l., works. | lb. | 1.05 | — |
| dms., l.c.l., same basis | lb. | 1.15 | — |
| tanks, same basis | lb. | .95 | — |
| b,g-Picoline, 5°C. dms., c.l., works. | lb. | .32½ | — |
| dms., l.c.l., works | lb. | .33 | — |
| g-Picoline, dms., t.o.b., works | lb. | 1.60 | — |
| tanks, t.l., same basis | lb. | 1.50 | — |
| Picric acid, NF, bbls. | lb. | .85 | — |
| Tech., bbls. | lb. | .50 | — |
| Pigment green B, kgs | lb. | 1.55 | — |
| Pilocarpine hydrochloride, USP, bots | oz. | 4.75 | 5.25 |
| Pilocarpine nitrate, USP, bots., vials. | oz. | 4.65 | 5.15 |
| Pimento, Jamaican, bgs. | lb. | 6834 | — |
| Mexican, bgs | lb. | .56 | — |
| Pimento berry oil, NF, dms. | lb. | 3.75 | 9.25 |
| Pimento leaf oil, crude, cns | lb. | 2.50 | 2.60 |
| Pine oil, dest.-dist., dms., l.c.l. works | lb. | .15 | — |
| dms., l.c.l. ex whse, New York. | lb. | .173 | — |
| Steam-dist., dms. ex whse., New York | lb. | .185 | — |
| dms., dlvd | lb. | .188 | — |
| Pineneedle oil, Siberian (see Abies Siberica oil). | | | |
| Pink root, bls. | lb. | 2.25 | — |
| Piperazine anhyd., dms., c.l., frt. alld. E | lb. | 1.80 | — |
| dms., l.c.l., frt. alld E | lb. | 1.85 | — |
| Piperazine citrate, 36% dms., 1,000 lbs. or more, frt. alld | lb. | 1.33 | — |
| Piperazine dihydrochloride, 51%, dms. 1,000 lbs or more, frt alld | lb. | 1.29 | — |
| Piperazine hexahydrate, 44%, dms., 1,000 lbs. or more, frt. alld | lb. | .90 | — |
| dms., 200-900 lbs., frt. alld | lb. | .93 | — |
| Piperazine phosphate, 42%, dms., 1,000 lbs or more, frt. alld | lb. | 1.11 | — |
| Piperidine, dist., 98% min., 5 dms. or more, l.c.l., l.t.l., f.o.b. works | lb. | 2.65 | — |
| 1-4 dms., same basis | lb | 2.70 | — |
| dms., c.l., t.l., frt. equald | lb. | 2.55 | — |
| Piperonyl butoxide, dms. dlvd E. | lb | 4.50 | 5.05 |

**PITCHES**

**Pitch quotations are listed individually. For example, prices on Pitch, soybean, may be found in the S's under Soybean pitch.**

| | | | |
|---|---|---|---|
| Platinum metal, works | oz. | 81.00 | 85.00 |
| Pleurisy root, bls. | lb. | .45 | .50 |
| Podophyllum resin, NF, dms. | lb. | 12.50 | 15.50 |
| Poke root, bls. | lb. | .19 | .22 |
| Polymyxin, bots., bulk., 50 billion units or more, 1,000,000 units. | | .52 | — |
| bulk, bots., 25-50 billion units. 1,000,000 units. | | .54 | — |
| bulk, bots., 1-25 billion units. 1,000,000 units. | | .56 | — |
| Polyoxyethylene sorbitan monostearate, dms., 20,000-lb. lots, works | lb. | .42 | — |
| dms., 10,000-20,000-lb. lots, works. | lb. | .44 | — |
| dms. smaller lots, works | lb. | .47 | .49 |
| Polyoxyethylene sorbitan tristearate, dms., 20,000-lb. lots, works | lb. | .42 | — |
| dms., 10,000-20,000-lb. lots, works | lb. | .44 | — |
| dms., smaller lots, works | lb. | .47 | .49 |
| Pontianak copal gum, chips, bgs | lb. | .23½ | .26 |
| Nubs, bgs. | lb. | .38 | .44 |
| Poppy seed, Argentine, bgs. | lb. | No stocks. | |
| Dutch, bgs. | lb. | .14 | — |
| Danish, bgs. | lb. | .14 | — |
| Polish, bgs. | lb. | .13 | — |
| Turkish, bgs. | lb. | .11 | — |
| Potash, caustic, liq., 45% basis, dms., c.l., works | 100 lbs | 4.25 | — |
| dms., l.c.l., same basis. | 100 lbs. | 5.25 | — |
| tanks, same basis | 100 lbs | 3.70 | — |
| reg., flake, 88-92% dms. c.l., same basis | 100 lbs. | 9.55 | — |
| dms., l.c.l., same basis. | 100 lbs. | 11.05 | — |
| solid, 88-92% dms., c.l., works | 100 lbs. | 9.10 | — |
| dms. l.c.l., works | 100 lbs. | 10.60 | — |
| Potassium acetate, NF, 200-lb. dm., f.o.b. works, E | lb. | .31 | — |
| Potassium bicarbonate, USP, gran. dms | lb. | .22 | — |
| powd., dms | lb. | .24 | — |
| Potassium bichromate, gran., bgs., c.l., t.l., works | lb. | .18 | — |
| bgs., l.c.l., works | lb. | .18½ | .19¼ |
| Potassium bichromate in dms. ¾c. higher. | | | |
| Potassium bitartrate, NF, gran., powd., 100-lb. bgs., c.l., frt. equald | lb. | .37 | — |
| 100-lb. bgs., 5,000 lbs. 1 shipt., same basis | lb. | .38 | — |
| 100-lb. bgs., smaller lots, same basis | lb. | .40 | — |

| | | | |
|---|---|---|---|
| Potassium borohydride, powd., dms., works | lb. | 16.00 | 22.00 |
| Pelletized potassium borohydride $1.25 per lb. higher in 1,000-lb. lots. | | | |
| Potassium bromate, 200-lb. dms., c.l., frt. alld | lb. | .49 - | — |
| Potassium bromide, USP, gran., bbls., kgs | lb. | .39 - | .40 |
| Potassium carbonate, dom., NF, gran., bbls., dms | lb. | .22 - | .24 |
| Dom., tech., powd., bbls., dms | lb. | .21 | .22 |
| Dom., calcinated, bgs., c.l., works, 100 lbs. | | 8.50 - | — |
| bgs., l.c.l., same basis 100 lbs. | | 9.55 - | — |
| Dom., hydrated, 83-85%, bgs., c.l., works 100 lbs. | | 7.10 - | — |
| bgs., l.c.l., works 100 lbs | | 8.15 - | — |
| Potassium chlorate, cryst, dms., c.l., works | lb. | .12¼- | — |
| dms., l.c.l., works | lb. | .13½ | .14½ |
| Powd., dms., c.l., works | lb. | .12¾- | — |
| dms., l.c.l., works | lb. | .14 | .15 |
| works | lb. | .12¼- | — |
| Potassium chlorate, NF, cryst., dms. 2,000 lbs or more, works | lb. | .16¾- | — |
| NF, gran., 25-lb metal dms | lb. | .36 | — |
| NF powd., dms., 2,000 lbs. or more, works | lb. | .17¼- | — |
| Potassium chloride, indust., 99.9% KCL, bulk, c.l., works | ton | 29.00 - | — |
| bgs., c.l., works | ton | 30 - | — |
| 99.3% KCL, bulk, c.l., works | ton | 28.00 - | — |
| bgs., c.l., works | lb. | 33.00 - | — |
| USP, cryst., dms | lb. | .17 - | — |
| Potassium chloride, USP, gran., dms | lb. | .21 - | .23 |
| USP powd, dms. | lb | .24 | .26 |
| Potassium chloride agricultural (see Potassium muriate) | | | |
| Potassium chromate, tech., dms., works | lb. | .50 | .51 |
| Potassium citrate, NF gran, 250-lb. dms., f.o.b. works E | lb. | .43 - | — |
| powd, 250-lb dms, same basis. | lb. | .46 - | — |
| Potassium cyanide, dms, 20,000-lb. lots or more works | lb | 42½ | — |
| dms, 2,000 19,999 lb lots works. | lb. | 43 | — |
| dms, smaller lots, works | lb | 44 | 44½ |
| Potassium dichromate (see Potassium bichromate) | | | |
| Potassium ferricyanide, dms., ton lots works | lb | 50 | — |
| dms., smaller lots works | lb. | 65 | — |
| Potassium ferrocyanide, dms., ton lots | lb | 24½- | — |
| dms, smaller lots | lb | 29 - | — |
| Potassium fluoborate, fib dms., c.l., works | lb | .30 | — |
| fib dms., l.c.l. works | lb | .31 - | — |
| Potassium fluoride, dms., works | lb | .36 | .37 |
| Potassium gluconate, 100-lb dm., f.o.b works & | lb | 1.67 | — |
| Potassium guaiacol sulfonate, NF, dms | lb | 2.10 | 2.30 |
| Potassium hydroxide, tech (see Potash caustic) | | | |
| Potassium hydroxide, USP, pellets, 100-lb dms. 1 to 100-dm lots | lb | 33½ | .38 |
| Potassium hypophosphite, NF, fib dms, 1,000 lb lots | lb | 1.38 | — |
| Potassium iodide, USP cryst, gran., 250-lb. dm., f.o.b. works | lb | 1.55 - | — |
| Potassium manure salt, min 20% K2O, bulk c.l. works, unit-ton | | .17 | .1765 |
| Potassium metabisulfite gran, dms., | lb | 16 | — |
| Powd., dms | lb | 27 | — |
| Potassium muriate, standard, bulk, c.l., works unit-ton | | .37½- | .39½ |
| bagged 60% minimum $K_2O$, same basis | ton | 26.60- | 27.80 |
| Gran., bulk, c.l., works unit-ton | | .38½- | .40½ |
| bagged, 60% minimum $K_2O$, same basis | ton | 28.10 | 30.10 |
| Inside prices apply to material contracted for prior to July 1, 1960 | | | |
| Outside prices apply to material contracted for after that date but also for delivery during the current month | | | |
| Potassium nitrate, NF cryst., bbls., 20-ton lots | 100 lbs | 17.00 | — |
| bbls., smaller lots | 100 lbs | 18.00 | 19.00 |
| gran., bgs, 20-ton lots | 100 lbs | 9.50 | — |
| bgs, smaller lots | 100 lbs. | 11.00 | 12.00 |
| powd., bgs., 20-ton lots | 100 lbs. | 10.50 | — |
| bgs, smaller lots | 100 lbs | 12.00 | 13.00 |
| Potassium oxalate, neutral, tech., fine gran, powd., 300-lb. dm, f.o.b works E | lb | .32 | — |
| Potassium pentaborate gran, dms, c.l. works | ton | 219.50 | — |
| dms., ton lots, ex whse | 100 lbs. | 17.48 - | — |
| dms., smaller lots, ex whse | 100 lbs. | 18.73 | — |
| Powdered potassium pentaborate $10 per ton higher | | | |
| Potassium perchlorate, dms., c.l., works | lb | 18½ | — |
| dms, l.c.l., works | lb | 19 | .20 |
| Potassium permanganate, coml., kgs. works | lb | .25 | .33 |
| USP dms., works | lb | 29 | .35 |
| Potassium pyrophosphate, tetrabasic, dms., works | lb | 1475- | 1575 |
| Potassium prussiate red (see Potassium ferrocyanide) | | | |
| Potassium prussiate yellow (see Potassium ferro-cyanide) | | | |
| Potassium silicate electrical grade, 30° Be. 1.2.0, dms., c.l., works | 100 lbs | 6.50 | — |
| dms., l.c.l. 5 dm lots or more, works | 100 lbs | 7.25 | 7.65 |
| tanks, works | 100 lbs | 6.15 | — |
| 40.5° Be 1:2.1, dms., c.l., works, 100 lbs. | | 5.95 - | — |
| dms, l.c.l. 5 dm. lots or more, works | 100 lbs | 6.70 | — |
| tanks, works | 100 lbs | 5.60 | — |
| glass grade, bgs., c.l., works, 100 lbs. | | 17.30 | 18.00 |
| bgs., l.c.l., works | 100 lbs. | 17.80 - | — |
| Soln., 29° Be, 1:2.5, dms., c.l., works | 100 lbs | 4.95 | — |
| dms, l.c.l., 5-dm lots or more, works | 100 lbs | 5.70 | — |
| tanks, works | 100 lbs | 4.60 | — |
| Potassium sil'cofluoride, bgs, works | lb | .09½ | .10 |
| Potassium silicofluoride in drums, 0.4c per lb higher | | | |
| Potassium stannate, dms, frt alld | lb. | .818 - | .891 |
| Potassium sulfate, min 50% $K_2O$, agricultural, bulk, c.l., works unit-ton | | .70½- | .72½ |
| Inside price applies to tonnage contracted for prior to July 1, 1960 | | | |
| Outside price applies to tonnage contracted for after that date but also for delivery during the current month. | | | |
| Potassium sulfate NF VII, cryst., dms. | lb | .31 | .33 |
| NF VII, gran., 400-lb. dm | lb. | .18 - | — |
| NF VII, powd., 400-lb dm | lb. | .17 - | — |
| Potassium sulfocyanate, NF cryst., (see Potassium thiocyanate). | | | |
| Potassium thiocyanate, NF, cryst., dms., works | lb. | .96 - | .98 |
| Tech., dms., works | lb. | .77 - | .79 |
| Potassium titanate, ctns., c.l., works. | lb. | .16¼- | — |
| ctns., 5-ton lots, works | lb. | .16½- | — |
| ctns., 1-ton lots or less, works | lb. | .16¾- | — |
| Potassium-magnesium sulfate, basis 40% $K_2SO_4$ and 18% MgO, bulk, works, base price. | ton. | 13.45 - | — |
| bulk, works, July forward | ton. | 14.00 - | — |
| Potassium-sodium tartrate, NF gran. or powd., 250-lb. dms., c.l., works E | lb. | .42½- | — |
| 250-lb dms., 5,000-lb. lots, same basis | lb. | .43 - | — |
| 250-lb. dms., same basis | lb. | .43½- | — |
| Potassium-titanium fluoride, fib, dms., works | lb. | .39 | .40 |
| Potassium-zirconium flouride, fib, dms., c.l., works | lb. | .50 - | — |
| fib dms., l.c.l. works | lb. | .52½- | .55 |
| Pregnenolone, bots. | gram | No prices. | |
| Pregnenolone acetate, bots. | gram. | No prices. | |
| Procaine hydrochloride USP antibiotic grade, dms., 2,000-lb lots, frt alld | lb. | 2.25 - | — |
| Procaine hydrochloride, USP, ampule grade, dms., 1,000-lb. lots, frt. alld | lb | 2.40 - | — |
| dms, 500 lbs | lb | 2.45 - | — |
| dms., 100 lbs | lb | 2.50 - | — |
| Progesterone, USP bots | gram | No prices. | |
| Pregnenolone acetate, bots | gram | No prices. | |
| Propenyl guaethol, dms. | lb. | 24.30 | 27.00 |
| b-Propriolactone tech., dms., c.l., f.o.b. works | lb. | .47½- | — |
| dms., l.c.l., t.t.l., same basis | lb. | .48½- | — |
| tanks, same basis | lb. | .45 - | — |
| Propionic acid syn., pure, dms., c.l., dlvd | lb. | .23¼- | — |
| dms., l.c.l., dlvd. | lb. | .24¾- | — |
| tanks, dlvd. | lb. | .20¾- | — |
| n-Propyl acetate, dms., c.l., dlvd. | lb. | .14¾- | — |
| dms., l.c.l., dlvd | lb. | .16¼- | — |
| tanks, dlvd | lb. | .12¼- | — |
| n-Propyl alcohol, dms., c.l., dlvd | lb. | .14 | .15 |
| dms., l.c.l., dlvd | lb. | .15½ | .16½ |
| tanks, dlvd. | lb. | .11½- | .12½ |
| n-Propyl gallate, dms., 100 to 2,000-lb lots, works | lb. | 3.90 | 4.40 |
| n-Propyl-p-hyroxybenzoate, USP, dms | lb. | 2.30 | 2.40 |
| Propyl thiouracil, bots., 50 kilo lots or more | kilo. | 55.00 | — |
| bots., smaller lots | kilo. | 55.10 | 55.30 |
| n-Propylamine, dms., c.l., dlvd | lb | 1.24 | — |
| dms., l.c.l., same basis | lb. | 1.255 | — |
| n-Propylene dichloride consumers', dms., c.l. dlvd. E | lb. | .0845- | — |
| dms., l.c.l., same basis | lb. | .0995- | — |
| tanks same basis | lb. | .07 - | — |
| Propylene dichloride prices in West 1c. higher, same basis | | | |
| Propylene glycol, indust., dms., c.l., dlvd. E | lb. | .15 - | — |
| dms., l.c.l., same basis | lb. | .16¾- | — |
| tanks, same basis | lb. | .12½- | — |
| USP, dms., c.l., dlvd. E | lb. | .17 - | — |
| dms., l.c.l., same basis | lb. | .18¾- | — |
| tanks, same basis | lb. | .14½- | — |
| Propylene glycol methyl ether, dms., c.l., dlvd | lb. | .20 - | — |
| dms., l.c.l., same basis | lb. | .21 - | — |
| tanks, same basis | lb. | .18½- | — |
| Propylene oxide dms., c.l., dlvd E | lb. | .17 - | — |
| dms., l.c.l., dlvd. E | lb. | .18½- | — |
| tanks, dlvd. E | lb. | .14½- | — |
| Psyllium seed, black, bgs | lb. | .42 | .45 |
| Blonde, bgs | lb | 18 | .20 |
| Husks, bgs | lb | 42 | 45 |
| Pumice, dom., grd. coarse to fine, 0, ½ 1, 1½ 2, 3, bgs., ton lots | lb. | 03⅝ | 04⅛ |
| bgs., smaller lots | lb. | 03⅞ | — |
| Imp., Italian silk-screen, coarse, bgs ton lots | lb | 06½ | — |
| fine, bgs ton lots | lb | 04 | — |
| sun dried, coarse, bgs | ton | 60 00 | — |
| fine, bgs. | ton | 60 00 | 70 00 |
| Pumpkin seed, bgs | lb. | .25 | .26 |
| Pyrethrins, syn (see Allethrin). | | | |
| Pyrethrum flowers, fine grd. 0.9% pyrethrins, bgs., ton, works | lb | .50 | — |
| Powd., 1.3% pyrethrins, bgs., ton, works | lb. | .71 - | — |
| Pyrethrum liquid, 20-1 basis (2 grams pyrethrins per 100cc odorless base), dms., works | gal. | 9.80 | 9.80 |
| 100/1 basis (10 grams pyrethrine per 100cc odorless base), dms., works | gal. | 45.90 | 46.90 |
| Pyrethrum oleoresin, dewaxed, 20%, dms., works | lb. | 11.00 | 11.35 |
| purif, 20%, dms., works | lb. | 11.00 | 11.35 |
| Pyridine, denat., dms. c.l., works and frt. equald | gal. | 2.77 - | — |
| dms., l.c.l., same basis | gal. | 2.80 - | — |
| Refd., 2°, non-ret. dms., c.l., same basis | lb. | .75½- | — |
| dms., l.c.l., same basis | lb. | .76 - | .76½ |
| tanks, same basis | lb. | .71 - | — |

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Consistent high purity
Convenient availability

If your process requires consistently highly-pure phenol—Oronite will prove to be your most dependable source of supply.

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7164

## Potassium Persulfate—Soda Ash

| | | | |
|---|---|---|---|
| Potassium persulfate, dms., c.l., works | lb. | .17½- | — |
| dms., l.c.l., works | lb. | .18 - | .21 |
| Pyridoxine hydrochloride, USP 500-gram bots., dms., f.o.b. works | kilo | 95.00 | 100.00 |
| Pyrites, Canadian, 48-50% S, mines, long-ton | | 4.50 | 5.00 |
| Pyrocatechol (see Catechol). | | | |
| Pyrogallic acid, NF (see Pyrogallol). | | | |
| Pyrogallic acid tech., bbls., 100-lbs., f.o.b., works | lb | 3.50 - | — |
| Pyrogallol, NF, 100-lb. dms | lb | 3.50 - | — |
| Pyroxylin, USP, bots | lb | 9.50 - | — |

## Q

| | | | |
|---|---|---|---|
| Quassia chips | lb. | .10 - | — |
| Quicksilver (see Mercury metal). | | | |
| Quince seed, bgs | lb. | 1.75 - | 2.00 |
| Quinidine sulfate, USP, 1,000-oz. dm | oz. | .78½- | — |
| Quinine, NF, 1,000-oz. dm. | oz. | .3750- | — |
| Quinine bisulfate USP, 1,000-oz. dm. | oz. | .28 - | — |
| Quinine hydrochloride, 1,000-oz. dm. | oz. | .3650- | — |
| Quinine sulfate, USP, 1,000-oz. dm. | oz. | .3150- | — |
| Quinoline, dms., c.l., frt. equald | lb. | .50¾- | — |
| dms., l.c.l., same basis | lb. | .51¼- | — |
| tanks, same basis | lb. | .50 - | — |

## R

| | | | |
|---|---|---|---|
| R salt paste, dms., c.l., t.l., frt. alld., 100% basis | lb. | .98 - | — |
| Powd., dms., c.l., t.l., frt. alld., 100% basis | lb. | 1.08 - | — |
| Rapeseed oil, dms. | lb. | .19 - | .19½ |
| tanks | lb. | .17½- | — |
| Rare earth oxalate, NF, 45-50%, bgs., works | lb. | 1.15 - | — |
| Rauwolfia serpentina root, powd., bbls., dms | lb. | 1.00 | 1.20 |
| Red carmine, No. 40 (see Carmine). | | | |
| Red oil (see Oleic acid). | | | |

**RED PIGMENTS**

**Red pigment quotations are listed individually. For example, prices on Red, lithol toner, may be found in the L's under Lithol red toner.**

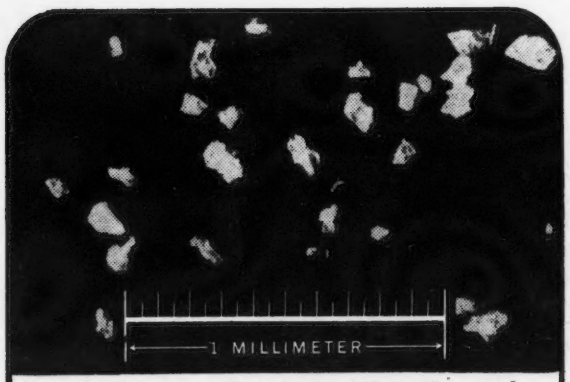
| | | | |
|---|---|---|---|
| Red precipitate (see Mercuric oxide, red). | | | |
| Red toner, Lake C, alizanine, bbls., works | lb | 1.30 - | — |
| Reserpine, cryst., bots | gram | 1.25 - | — |
| Resorcinol, tech. grade, bgs., c.l., works, frt. equald | lb. | 77½- | — |
| bgs., l.c.l., same basis | lb. | 78½- | — |
| Resorcinol in dms., 1c. per lb. more. | | | |
| USP, powd., dms., works | lb. | 2.95 - | — |
| Resorcinol monoacetate, NF, dms. | lb. | 2.50 - | — |
| Rhatany root, bgs | lb. | .14 - | .16 |
| Rhodamine red toner, molybdated, PMA, kgs., works | lb. | 6.00 - | — |
| Tungstated, PTMA, works, kgs | lb. | 6.60 | — |
| Rhodinol, 5-lb. cans | lb. | 42.00 | 51.00 |
| Synthetic | lb. | 14.00 | 16.00 |
| Rhubarb root, India, whole, bgs | lb. | .25 - | — |
| powd., bgs. | lb. | .35 - | — |
| Riboflavin, USP, fib dms., kilo or more, dlvd | kilo. | 36.00 - | — |
| Riboflavin, 5-phosphate-sodium, fib. dms., kilo or more, dlvd. | kilo. | 104.70 - | — |
| Rice bran oil, clarified, dms., l.c.l. | lb. | .15½- | — |
| tanks, dlvd. E | lb. | .14 - | — |
| Ricinoleic acid (see Castor oil acids split). | | | |
| Rochelle salt (see Potassium-sodium tartrate) | | | |
| Roofing pitch (see Coaltar pitch roofing). | | | |
| Rose oil, nat., Bulgarian, bots | lb. | 1,152.00 - | — |
| Turkish, bots., otto | lb. | 600.00 | 700.00 |
| absolute | lb. | 145.00 - | — |
| Rosemary oil, Spanish, NF, cns., dms | lb. | .97 | 1.40 |
| Spanish, tech., cns., dms | lb. | .80 - | .95 |
| Rosin gum and wood (see Naval Stores in Protective Coatings market). | | | |
| Rotenone, fib, dms., works | unit-lb. | .10½- | — |
| Resin, 25-45% fib dms, works | unit-lb. | .10½- | — |
| Rottenstone, bgs., 5-ton lots, exwhse | lb. | .03¾- | — |
| bgs., ton lots, same basis | lb. | .04¼- | — |
| Rubber solvent, petroleum, 115°F-245°F b.r., tankcars, New Jersey and New York | gal. | .19 - | — |
| Group 3 | gal. | .13875- | — |
| Houston, Texas | gal. | .155 | — |
| Rue oil, bots | lb. | 2.75 | 3.00 |
| Rutin, NF, fib dms., 10 kilo lots | kilo. | 11.00 - | — |
| fib. dms., 5 kilo lots | kilo. | 11.50 - | — |
| fib. dms., 1 kilo | kilo. | 13.00 - | — |
| Ryania, 100%, powd., bgs., c.l., works | lb. | .22 - | — |
| bgs., l.c.l., same basis | lb. | .24 - | — |

## S

| | | | |
|---|---|---|---|
| S acid, bbls., works | lb. | 3.25 - | — |
| Sabadilla seed activated, ground with lime, bbls | lb. | .42 - | .44 |
| Saccharin, calcium, fib, dms., 1,000-lb. lots, works | lb. | 2.50 - | — |
| Saccharin, USP, gran., soluble, dms., 1,000-lb. lots | lb. | 1.50 - | — |
| dms., smaller lots | lb. | 1.60 - | — |
| USP, powd., soluble, dms., 1,000-lb. lots | lb. | 1.55 - | — |
| dms., smaller lots | lb. | 1.65 - | — |
| USP, powd., insoluble, dms., 1,000-lb. lots | lb. | 1.53 - | — |
| dms., smaller lots | lb. | 1.63 - | — |
| Safflower oil, dms., New York | lb. | .1815- | .1840 |
| tanks, Atl. coast | lb. | .1620- | .1645 |
| Saffron, Mancha Superior, tins | lb. | 19.50 - | — |
| Safrol, dms. | lb. | .65 - | — |
| Sage, Dalmatian, bgs. | lb. | .40 - | — |
| Greek, cns. | lb. | .15 - | — |
| Italian, cns. | lb. | .18 - | — |
| Sage oil, clary, bots. | lb. | 12.00 | 15.00 |
| Dalmatian, cns. | lb. | 2.85 - | 3.25 |
| Spanish, cns | lb | 1.25 - | 1.75 |
| Sal soda (see Soda sal). | | | |
| Salicylaldehyde, dms., c.l., t.l., f.o.b. plant, frt. equald | lb. | 1.23 - | — |
| dms., l.c.l. same basis | lb. | 1.25 - | — |
| Salicylamide, 100-lb dms | lb | 1.05 | — |
| Salicylic acid tech., fib. dms., c.l., t.l., dlvd | lb. | .40½- | — |
| fib dms, l.c.l. dlvd | lb. | .44¾- | — |
| USP, cryst., 200-lb. fib. dms., 1,000 lbs. or more | lb. | .51¾- | — |
| 200-lb. fib. dms., less than 1,000 lbs | lb. | .54¾- | — |
| Cryst., 100-lb. fib. dms., 1,000 lbs. or more | lb. | .53¾- | — |
| 100-lb. fib. dms. less than 1,000 lbs | lb. | .56¾- | — |
| Salicylic acid, USP, powd., 100-lb. fib. dms., 1,000 lbs. or more | lb. | .58¾- | — |
| 100-lb fib. dms., less than 1,000 lbs | lb. | .61¾- | — |
| Salol, NF, gran., bbls., kgs | lb | 1.20 | — |
| Powdered salol 25c per lb higher. | | | |
| Salt, rock, paper bgs., c.l. 100 lbs | | 1.09 - | — |
| Salt, table vacuum common, fine, paper bgs., c.l. 100 lbs. | | 1.34 - | — |
| Saltcake, dom. bulk, works, 100% $Na_2SO_4$ basis | ton. | 28.00 | — |
| Saltpeter (see Potassium nitrate) | | | |
| Sandalwood E. Indian, chips, bgs., | lb. | .55 | .66 |
| powd. fib dms | lb | 75 | 76 |
| Sandalwood oil, cns | lb. | 26.00 | 30.00 |
| Sarcosine, tech., tanks, f.o.b., works, frt. equald | lb | 1.03 | — |
| | lb | No stocks. | |
| Sassafras oil, artif., dms | lb. | .45 | — |
| Nat., dom., dms | lb | 1.40 | — |
| Savory oil, cns | lb | 4.75 | — |
| Schaeffer's salt paste, dms., frt. alld. 100% basis | lb. | .85 - | — |
| Powd. bgs. frt alld. 100% basis. | lb. | .95 - | — |
| Scopolamine hydrobromide, USP, bots | oz. | 13.00 | — |
| Sebacic acid, CP, bgs., c.l., works | lb. | .69½- | — |
| bgs., l.c.l., works | lb. | 71½- | — |
| Purified, bgs., c.l., works | lb. | .65½- | — |
| bgs., l.c.l., works | lb. | .67½- | — |
| Seidlitz mixture fib dms. 5,000-lb. lots | lb. | .30½- | — |
| fib. dms., smaller lots | lb. | .31 | .32 |
| Selenium, powd., 99½%, dms., dlvd. | lb. | 7.00 - | — |
| Senega root, bls | lb. | 3.00 - | 3.25 |
| Senna leaves, Alexandria, whole and half, bls | lb. | .20 - | .22 |
| siftings | lb. | .16 - | — |
| Tinnevelly, No. 1, bls. | lb. | .22 - | — |
| No. 2, bls | lb. | .18 - | — |
| No. 3, bls | lb. | .14 - | — |
| pods, bls. | lb. | .28 - | — |
| powd., bbls., bxs | lb. | .17 - | — |
| Serpentaria root, bls | lb. | 6.50 - | — |
| Sesame oil, USP, dms., l.c.l | lb. | .37 - | .38 |
| Sesame seed Colombian, bgs | lb. | .15½- | — |
| Lebanese, hulled, bgs | lb. | .19 - | — |
| Nicaraguan, hulled, bgs | lb. | .21 - | — |
| nat., bgs. | lb. | .15 - | — |
| Salvadorian, Nat. bgs | lb. | .16 - | — |
| Shellac, bleached bonedry bgs., 1,500-lb. lots | lb. | .47 - | — |
| dms., l.c.l. works | lb. | .22 | .30½ |
| bbls., 1,500-lb. lots | lb. | .46 - | — |
| kgs., 1,500-lb. lots | lb. | .47 - | — |
| Bonedry shellacs prices for less than 1,500-lb lots 1c. per lb. higher tor all packages. | | | |
| Shellac, bleached refd. bgs., 1,500-lb. lots | lb. | .56 - | — |
| bbls., 1,500-lb lots | lb. | .57 - | — |
| kgs., 1,500-lb lots | lb. | .58 - | — |
| Shellac, orange lemon No 1, bgs., 10-bg. lots | lb. | .37 | .39 |
| lemon No 2, bgs., 10-bg. lots, | lb. | .34 | .37 |
| superfine, bgs. 10-bg. lots | lb | .32 | .34 |
| Shellac in 1 to 10-bg lots 1c per lb more. | | | |
| Shingle stain oil tar distillate, dms. c.l., works | gal. | .37 | — |
| dms., l.c.l., works | gal. | .48 - | — |
| tanks, works | gal. | .25 | — |
| Sienna pigment, burnt, paper bgs., c.l., works | lb. | .06½- | .18¼ |
| paper bgs., l.c.l., works | lb. | .06¾- | .17¾ |
| Raw, paper bgs., c.l., works | lb. | .06¾- | .16¾ |
| paper bgs. l.c.l., works | lb. | .07 | .17 |
| Silica, amorph., dry-grd., 325 mesh, bgs., c.l., works | ton. | 25.00 | — |
| bgs. l.c.l. works, ex whse. | ton. | 45.00 | 55.00 |
| Silica, hard-quartz, 99½%, 325 mesh, bgs., c.l., works | ton. | 20.00 - | — |
| bgs., l.c.l., works | ton. | 25.00 - | — |
| 99½%, 140 mesh, bgs., c.l., works | ton. | 15.00 - | — |
| bgs., l.c.l. works | ton. | 20.00 - | — |
| Silicon tetrachloride, tech., dms., c.l., works | lb. | .20 - | — |
| tanks, works | lb. | .15 - | — |
| Silver bullion, ingots, cs | Troy oz. | .91¾- | — |
| Silver cyanide bots., 1,000-oz. lots, | oz. | .94¾- | — |
| bots., 500-oz. lots | oz. | .95¼- | — |
| bots., 100-oz lots | oz. | .96¼- | — |
| Silver nitrate, CP, cryst., bots., 1,000 to 4,000 oz., f.o.b. works | oz. | .67¼- | — |
| bots 250-500 oz. same basis, | oz. | 67¾- | — |
| USP granular silver nitrate 4c. per oz higher. | | | |
| Silver proteinate, mild, USP, 16-oz. bots | oz. | 1.46 | — |
| Snakeroot oil, Canada, cns | lb. | 40.00 | 43.00 |
| Soapbark, crushed, bls. | lb. | .35 - | — |
| Powd., bls. | lb. | .40 - | — |
| Whole, bls. | lb. | .25 - | — |
| Soda ash dense, 58%, paper bgs., c.l., works 100 lbs | | 1.90 | — |
| paper bgs. l.c.l. stock pts., 100 lbs | | 3.00 | 4.77 |
| bulk, c.l., works | 100 lbs. | 1.60 | — |


Get Sodium Bicarbonate in the grain size you need **every time...**

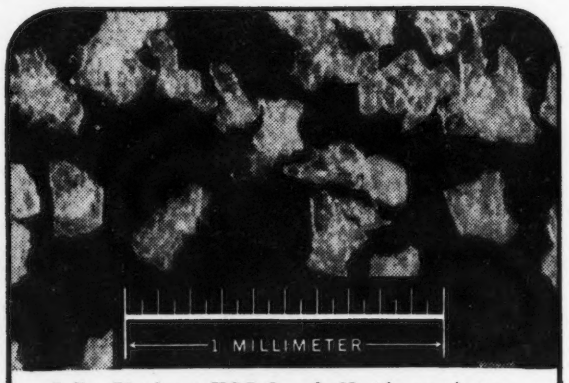
FROM CHURCH & DWIGHT




Sodium Bicarbonate U.S.P. Powdered No. 1—For general purpose use in pharmaceuticals, chemical processing, tooth powder, industrial applications.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

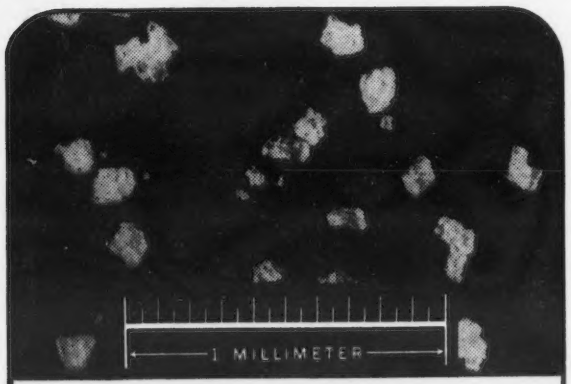
| | | | |
|---|---|---|---|
| 42 Mesh | Trace | 200 Mesh | 35.0% |
| 100 Mesh | 5% | 325 Mesh | 70.0% |
| 170 Mesh | 20.0% | 400 Mesh | 80.0% |




Sodium Bicarbonate U.S.P. Granular No. 5 for manufacture and compounding of effervescent salts, fruit soft drink tablets and other pharmaceuticals.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

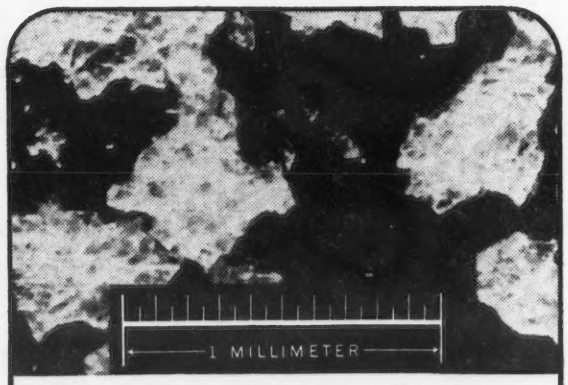
| | | | |
|---|---|---|---|
| 42 Mesh | Trace | 100 Mesh | 92.5% |
| 65 Mesh | 27.0% | 170 Mesh | 99.0% |
| 80 Mesh | 66.5% | | |




Sodium Bicarbonate U.S.P. Granular No. 4 for use in pharmaceuticals, baking powders and cake mixes.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

| | | | |
|---|---|---|---|
| 80 Mesh | Trace | 200 Mesh | 91.0% |
| 100 Mesh | 1.5% | 325 Mesh | 98.5% |
| 170 Mesh | 80.5% | | |




Sodium Bicarbonate U.S.P. Extra Coarse Granular No. 6 for use in formulating special pharmaceuticals.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

| | | | |
|---|---|---|---|
| 28 Mesh | None | 65 Mesh | 91.0% |
| 42 Mesh | 13.0% | 80 Mesh | 98.5% |
| 48 Mesh | 33.0% | 100 Mesh | 99.3% |

Why jeopardize the shelf life or sparkling performance of your pharmaceutical products with an inappropriate granulation of sodium bicarbonate? To eliminate risks, specify Church & Dwight. You'll obtain the widest selection of grain sizes available because Church & Dwight is the country's largest supplier of Sodium Bicarbonate U.S.P. You'll also receive for the asking unmatched technical service based on more than 100 years of experience in the formulating of Sodium Bicarbonate. Unusual grain size requirements are given special attention. Try us and see. For technical data on all grades of Sodium Bicarbonate, send for brochure, "Church & Dwight Sodium Bicarbonate—How It Serves Industry Today."

**CHURCH & DWIGHT CO., INC.,** 70 PINE STREET, NEW YORK 5, N.Y.

| | | | |
|---|---|---|---|
| Soda ash, light, 58%, paper bgs., c.l., works | 100 lbs. | 1.85 | — |
| paper bgs., l.c.l., stock pts. | 100 lbs. | 3.95 | 4.72 |
| bulk, c.l., works | 100 lbs. | 1.55 | — |
| Soda, caustic, flake, 76%, dms., c.l., works, frt. equald | 100 lbs. | 5.20 | — |
| liq., 50% sellers tanks, works, dry basis | 100 lbs. | 2.90 | — |
| 50% rayon type, sellers' tanks, works, dry basis | 100 lbs. | 2.90 | 3.00 |
| Soda, caustic, liq, 73%, sellers' tanks works dry basis, | 100 lbs. | 3.00 | — |
| liq., 73% rayon type, sellers' tanks, works, dry basis | lb. | 3.00 | 3.10 |
| solid, 76% dms., c.l., works, | 100 lbs | 4.80 | — |
| Soda, sal conc, bgs, c.l., works, | 100 lbs. | 2.50 | — |
| bgs, smaller lots, works | 100 lbs. | 2.80 | — |
| Sodium acetate annyd., bgs., c.l., dlvd E | lb. | .14½ | — |
| bgs., l.c.l., same basis | lb. | .16½ | — |
| NF 60% gran, dms, c.l., works, | lb. | .15½ | — |
| dms, l.c.l. works | lb. | .17½ | — |
| Sodium alginate, NF, white powd., dom. 300 lbs or more | lb. | 1.62 | — |
| Sodium p-aminosalicylate, dms., 100-lb lots or more, frt. adjusted | lb. | 1.90 | — |
| Sodium antimoniate bgs. c.l. dlvd. E | lb. | .27½ | — |
| bgs. l.c.l. dlvd E | lb. | .29 | — |
| Sodium arsenate 60% arsenic pentoxide 200 lb dm less than ton lots, f.o.b. works | lb. | .24 | — |
| ton lots or more same basis, | lb. | .23½ | — |
| Sodium arsenite, 94% soluble pink powder, 75% arsenous oxide, dealers, 100-lb dms., ton lots or more, f.o.b., works | lb. | .18½ | — |
| 1,600-1,900 dms., same basis | lb. | .19 | — |
| 100-500 dms., same basis | lb. | .20 | — |
| Sodium ascorbate, dms., 100-kilos., dms. f.o.b works | kilo | 6.80 | — |
| less than 100-kilos | kilo | 7.05 | — |
| Sodium benzoate tech, dms, c.l., t.l., frt. alld | lb. | .35 | — |
| dms, l.c.l same basis | lb. | .39 | — |
| USP, dms., ton lots, same basis | lb. | .43 | — |
| dms, 1,000-lb lots same basis, | lb. | .45 | — |
| Sodium bicarbonate USP, gran., bgs., c.l. works | 100 lbs | 2.95 | — |
| bgs. l.c.l. works | 100 lbs | 3.85 | — |
| USP powd. bgs c.l., works, | 100 lbs. | 2.55 | — |
| bgs. l.c.l. works | 100 lbs | 3.45 | — |
| Sodium bichromate gran., ngs., c.l., t.l., works | lb. | .13 | — |
| bgs. l.c.l. works | lb. | .13½ | .14¾ |
| Sodium bichromate in dms ¾c. per lb higher | | | |
| Sodium bifluoride, fib. dms., c.l., works, frt. equald | lb. | .19½ | — |
| fib. dms., l.c.l., same basis | lb. | .2025 | — |
| Sodium bisulfate bulk c.l. works, | 100 lbs | 2.00 | — |
| dms c.l., frt equald | 100 lbs | 3.00 | 3.60 |
| dms. l.c.l. frt equald | 100 lbs | 3.50 | 4.10 |
| Sodium bisulfite annyd., bgs. c.l., works | 100 lbs | 5.00 | — |
| bgs. l.c.l. works | 100 lbs | 5.45 | — |
| Soln., 35° bbls. c.l., works | 100 lbs | 1.70 | — |
| bbls l.c.l works | 100 lbs | 2.20 | — |
| Sodium borate (see Borax) | | | |
| Sodium borohydride powd., dms., c.l., works | lb. | 19.90 | — |
| dms. l.c.l. works | lb. | 33.00 | 40.00 |
| stabilized water soln., 12% NaBH, 100% basis, dms., works | lb. | 15.00 | — |
| Pelletized sodium borohydride $1 per lb higher in 1,000-lb lots. | | | |
| Sodium bromide USP gran dms., works | lb. | .40 | — |
| Sodium carbonate cryst. monohydrated (see Soda sal) | | | |
| Sodium carbonate, monohydrated, bgs., c.l. works | 100 lbs | 3.10 | — |
| bgs. l.c.l. works | 100 lbs | 3.50 | — |
| Sodium carboxymethyl cellulose (see CMC). | | | |
| Sodium chlorate cryst., 350-lb dms., c.l., works | lb. | .09 | — |
| dms. l.c.l. works | lb. | 09½ | .10½ |
| Sodium chlorate in 100-lb dms. only, ¼c. per lb higher | | | |
| Sodium chloride, tech (see Salt). | | | |
| Sodium chloride, USP gran. bgs. | lb. | .05 | — |
| Sodium chlorite tech. dms., c.l., works | lb. | .58 | — |
| dms. 20-dm lots or more works. | lb. | .66 | — |
| dms. smaller lots, works | lb. | .70 | .73 |
| Sodium chloroacetate, tech. dms., c.l., works | lb. | .27 | — |
| dms. l.c.l. works | lb. | .28 | — |
| Sodium chromate, anhyd. fib dms., c.l., t.l., works | lb. | .14¾ | — |
| fib dms l.c.l. works | lb. | .15¼ | .16½ |
| Sodium chromate tetrahydrate, bgs. c.l. t.l. works | lb. | .1015 | — |
| bgs. l.c.l | lb. | .1065 | .1190 |
| Sodium citrate anhyd. 200-lb dm., f.o.b works E | lb. | .62 | — |
| NF VIII gran bgs. c.l. same basis | lb. | .26 | — |
| USP XIV gran. bgs. c.l., same basis | lb | .29 | — |
| Sodium citrate USP powd prices ½c higher. | | | |
| Sodium cyanate dms. 1,000-lb lots, works | lb. | .85 | — |
| dms. smaller lots works | lb. | .90 | 1.10 |
| Sodium cyanide briquettes or gran., 97 percent min., dms., works 20,000-lb lots | lb. | .176 | — |
| dms. same basis, 5,000 to 19,999-lb lots | lb. | .188 | — |
| dms. same basis, 1,000 to 4,900-lb lots | lb. | .198 | — |
| Sodium cyclamate 100-lb dm. f.o.b. works | lb. | 1.95 | — |
| Sodium diacetate, anhyd. 39-41% acetic acid. dms., c.l., works | lb. | .18 | — |
| 250-lb dms. c.l., works | lb. | 18¾ | — |
| Tech 33-35% acetic acid. dms., l.c.l. works | lb. | .15 | — |
| 250-lb dms l.c.l. works | lb. | .15¼ | — |
| Sodium dimethyl dithiocarbamate, 40% soln dms. c.l., t.l. frt alld., 100% basis | lb. | .42 | — |
| dms. l.c.l. t.l., same basis | lb. | .47 | .52 |
| tanks same basis | lb. | .38 | — |
| Sodium ferrocyanide, bgs., 10-ton lots | lb. | .13½ | — |
| bgs smaller lots | lb. | .14¾ | — |
| Sodium fluoride white, 97% fib. dms., c.l., works, frt. equald | lb. | 1390 | — |
| fib dms. l.c.l., works, frt. equald | lb. | .1465 | — |
| Sodium formate bgs. c.l. works, | 100 lbs. | 7.05 | — |
| bgs. l.c.l. ex whse | 100 lbs | 8.65 | — |
| Sodium gentisate 100-lb fib dms. | lb | 5.50 | — |
| Sodium gluconate reltd., 250-lb. dm., f.o.b works E | lb | .64 | — |
| Tech. bgs. c.l. t.l., same basis | lb. | .36 | — |
| Sodium hydride 50% soln in oil, dms. works | lb. | 1.25 | 2.30 |
| 25% soln in oil, dms., 50 lbs or less, f.o.b shipping point. | lb. | 2.20 | — |
| dms. 50-99 lbs same oasis | lb | 1.77 | — |
| dms., 100-999 lbs same basis | lb | 1.20 | — |
| dms., 1,000 lbs or more, same basis | lb. | .93 | — |

| | | | |
|---|---|---|---|
| Sodium hydrosulfide (see Sodium sulfhydrate). | | | |
| Sodium hydrosulfite dms. c.l., frt. alld | lb. | 23½ | — |
| dms., l.c.l. frt. alld. | lb. | 25¼ | — |
| Sodium hydroxide, NF, pellets, 100-lb. dms., 1 to 100-dm. lots. | lb | .23½ | .28 |
| Sodium hydroxide, tech (see Soda, caustic). | | | |
| Sodium hypophosphite, NF, dms. 1,000-lb. lots | lb. | .99 | — |
| Sodium hyposulfite (see Sodium thiosulfate). | | | |
| Sodium iodide, USP, 300-lb. dms., f.o.b. works | lb. | 2.13 | — |
| Sodium lauryl sulfate, dms., c.l., dlvd | lb. | .20½ | — |
| dms., t.l.l., dlvd. | lb. | .21½ | — |
| tanks, dlvd. | lb. | .19½ | — |
| Sodium lignin sulfonate, bgs., c.l., works | 100 lbs | 4.25 | 6.50 |
| l.c.l., bgs., works | 100 lbs | 4.40 | 7.00 |
| Sodium metabisulfite (see Sodium bisulfite). | | | |
| Sodium metaborate octahydrate, gran. bgs. c.l. works | ton | 210.00 | — |
| bgs., ton lots, ex whse | 100 lbs. | 8.30 | — |
| bgs. smaller lots, ex whse | 100 lbs. | 9.61 | 11.61 |
| Tetrahydrate, bgs. c.l., works | ton | 210.00 | — |
| bgs., ton lots, ex whse | 100 lbs. | 14.83 | — |
| bgs., smaller lots, ex whse | 100 lbs. | 16.08 | 18.08 |
| Sodium metallic, bricks, c.l., works. | lb. | .21 | — |
| Fused, 18,000-lb lots or more, works | lb. | .19½ | — |
| tanks, works | lb. | .17 | — |
| Sodium metalinate, bbls., frt. alld. | lb. | .62 | — |
| Sodium metaphosphate, bgs., c.l., f.o.b. shipping pt | 100 lbs. | 11.10 | — |
| bgs., l.c.l., same basis | 100 lbs. | 11.85 | — |
| dms., c.l., same basis | 100 lbs. | 11.70 | — |
| dms., l.c.l., same basis | 100 lbs. | 12.45 | — |

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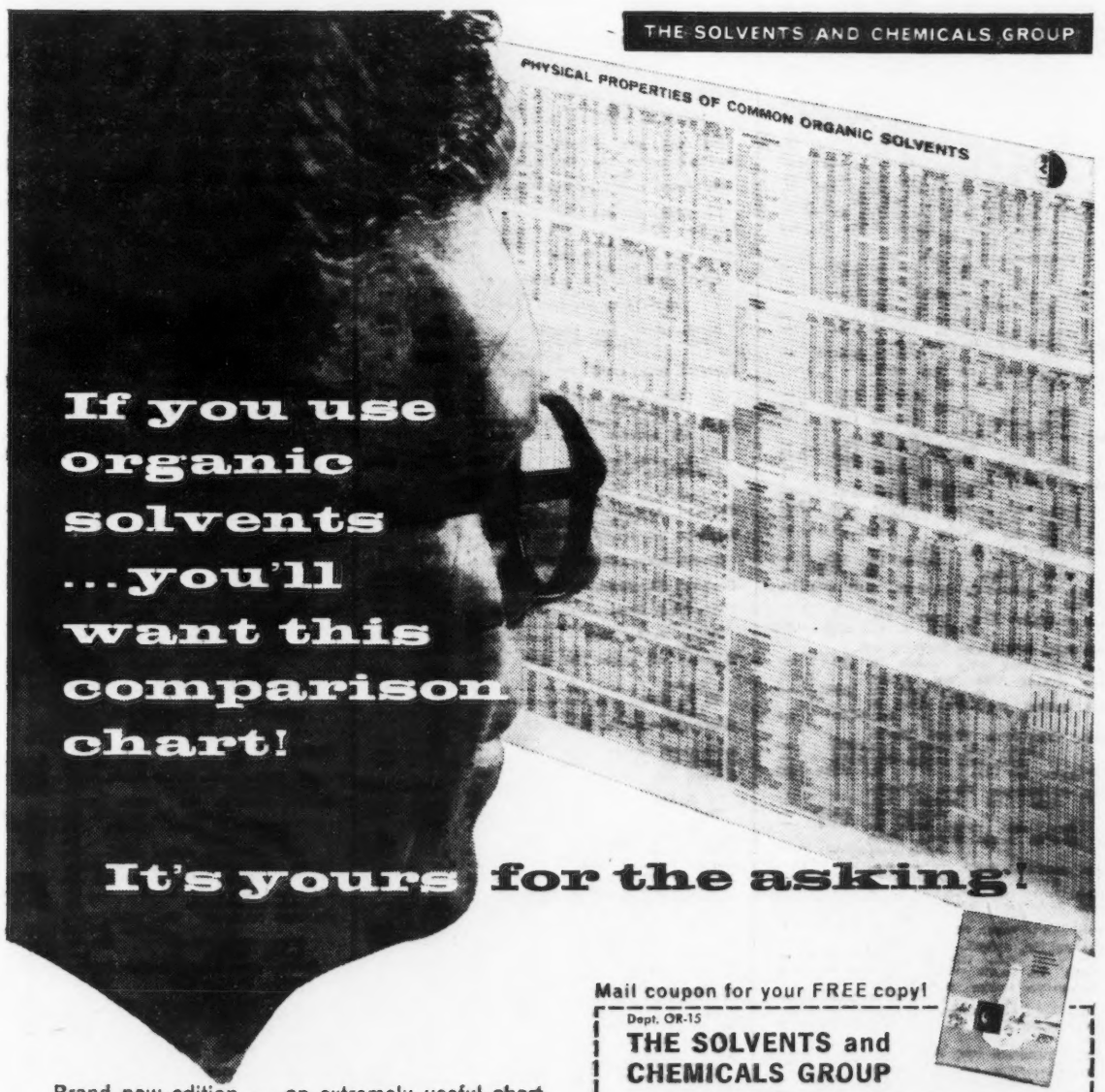
|---|---|---|---|
| Sodium metasilicate, anhyd., bgs., c.l., works | 100 lbs. | 5.70 | — |
| bgs., 6,000-19,800 lb. lots, works | 100 lbs. | 6.05 | — |
| dms., c.l., works | 100 lbs. | 6.20 | — |
| dms., l.c.l., works | 100 lbs. | 6.55 | — |
| Sodium metasilicate pentahydrate, bgs., c.l., works | 100 lbs. | 4.45 | — |
| bgs., l.c.l., works | 100 lbs. | 4.80 | 6.75 |
| dms., l.c.l., works | 100 lbs. | 4.95 | — |
| dms., l.c.l., works | 100 lbs. | 5.30 | 7.25 |
| Sodium molybdate, anhyd., dms., works, frt. equald | lb. | .92 | .99 |
| Cryst., dms., works, frt. alld | lb. | .74 | .76 |
| Sodium monoglutamate (see Monosodium glutamate). | | | |
| Sodium monohydrate (see Sodium carbonate, monohydrated) | | | |
| Sodium naphthionate, bbls. | lb. | .77 | — |
| Sodium nitrate, dom., crude, bgs., c.l. works | ton | 48.00 | — |
| bulk, c.l., works | ton | 44.00 | — |
| Imp., crude, 100-lb. bgs., c.l., Atl., Gulf, Pac., whse | ton | 48.00 | — |
| bulk, c.l., same basis | ton | 44.00 | — |
| Sodium nitrite, USP bbls., c.l., works, frt. equald | 100 lbs. | 9.40 | — |
| bbls., l.c.l., same basis | 100 lbs. | 11.40 | — |
| Sodium orthosilicate, conc., dms., c.l., works | 100 lbs | 6.70 | — |
| dms., l.c.l., works | 100 lbs | 7.05 | 7.65 |
| Hydrated, flake, bbls., c.l., works | 100 lbs | 5.65 | — |
| bbls., l.c.l., works | 100 lbs | 7.60 | 7.90 |

| | | | |
|---|---|---|---|
| Sodium oxalate, 98%, bgs., works | 100 lbs | 12.25 | — |
| 99%, bgs., works | 100 lbs. | 15.40 | — |
| Sodium para-aminobenzoate (see Sodium p-aminobenzoate). | | | |
| Sodium para-aminosalicylate (see Sodium p-aminosalicylate). | | | |
| Sodium pentachlorophenate, briquets, dms., c.l., works, frt. equald | lb. | .26 | — |
| dms., l.c.l., same basis | lb. | .27½ | .34 |
| Pellets, dms., c.l., same basis | lb. | .26 | — |
| dms. c.l. same basis | lb. | .27½ | .34 |
| Powd., dms., c.l., same basis | lb. | .25 | — |
| dms. l.c.l. same basis | lb. | .26½ | .33 |
| Sodium pentabarbital, USP, dms., 100 lbs. or more | lb | 6.00 | — |
| Sodium perborate NF, tech., bgs., c.l. works | lb. | .18½ | — |
| bgs. l.c.l. works | lb. | .19 | .21 |
| Sodium peroxide, dms., c.l., t.l., dlvd E of Miss | lb. | .21½ | — |
| dms., l.c.l. same basis | lb | .22 | .22½ |
| Sodium phenobarbital USP, 100-lb dms | lb | 3.75 | — |
| Sodium phenosulfonate, USP, LX., gran., dms | lb | .52 | .53 |
| NF powd. dms | lb. | .55 | .56 |
| Sodium phosphate, dibasic, anhyd., bgs., c.l. frt equald 100 lbs | lb. | 8.10 | — |
| bgs., l.c.l., same basis 100 lbs | lb. | 8.50 | 9.35 |
| Sodium phosphate, dibasic, cryst., bgs., c.l., t.l., frt equald 100 lbs | lb. | 4.75 | — |
| bgs., l.c.l., frt. equald 100 lbs. | lb. | 5.15 | 5.90 |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Sodium phosphate, dibasic, duohydrate, bgs., c.l., frt. equald ..100 lbs. 7.75 - —
bgs., l.c.l., same basis 100 lbs. 8.25 - —
Monobasic anhyd bgs, c.l. frt. equald 100 lbs. 9.15 —
bgs., l.c.l., same basis 100 lbs. 9.55 -10.15
Tribasic anhyd bgs c.l., frt equald 100 lbs. 9.15 —
bgs. l.c.l. frt equald 100 lbs. 9.60 -10.20
Sodium phosphate in dms 60c to 80c higher than bgs
Sodium phosphate, USP, dried, powd., bgs., dms., works lb. .19 .20½
Sodium picramate, tech., paste, dms f.o.b. works, frt. equald lb. .90 - —
Sodium propionate, any quantity, dms dlvd E of Rockies, lb. .37 - —
Prices W of Rockies 3c per lb more
Sodium prussiate yellow (see Sodium ferrocyanide)
Sodium pyrophosphate, acid, bgs., c works frt equald 100 lbs.11.25 —
bgs., l.c.l., same basis 100 lbs.12.00 -12.50
Sodium pyrophosphate, ferric, dms., c.l. t.l. works lb. .36 —
dms l.c.l. works lb. .37 .39
Tetrabasic, anhyd., bgs., c.l., works frt equald 100 lbs. 7.55 - —
bgs., l.c.l., same basis 100 lbs. 8.30 - —
Sodium salicylate USP dms. 1,000-lbs or more lb. 78½- —
dms. less than 1,000 lbs dms lb. 81½- —
Sodium sesquicarbonate, bgs., c.l., works 100 lbs. 2.35 —
l.c.l., dlvd. zone 1 ..... 100 lbs. 4.10 - 4.35
dlvd zone 2 ..... 100 lbs 4.35 4.60
dlvd zone 3 ..... 100 lbs 4.75 4.90
dlvd zone 4 100 lbs 5.35 5.60
Sales zones are (1) All states E. of Miss., R and N of south bound of Ky and Va., Ala., La and Miss south of 31°; Tex E. of 100°; S of 31 Fla., also Me., N H and Vt in which there are special county zones; Davenport Ia., and St Louis; (2) Ark E. of 98° Ga., Iowa (except Davenport) Minn. Mo. (except St Louis) Neb E. of 98° N C., S C., Tenn and Tex N of 31° and E. of 100° (except Wichita Falls); also Ala. La. and Miss. No of 31°; (3) Ark W of 96° Kan., Neb W. of 98° N D., Okla., S. D., Tex., W of 100° (including Wichita Falls, excluding El Paso); (4) Ariz., Colo., Idaho, Mont., Nev., N. M., Utah Wyo and El Paso Tex
Sodium sesquisilicate anhyd., bgs., c.l. t.l. works 100 lbs 5.70 - —
dms c.l. t.l. works 100 lbs 6.20 - —
hydrated, bgs., c.l., works.100 lbs. 5.00 - —
bgs., 6,000-19,900 lb. lots, works 100 lbs 5.35 - —
dms., c.l., works 100 lbs 5.50 - —
dms. 6,000-19,900 lb lots works. 100 lbs 5.85 - —
Sodium silicate, liq., 40° Be. 1:3.2, turbid dms., c.l. works. 100 lbs. 1.65 —
dms., l.c.l., works 100 lbs 1.90 2.40
tanks, works 100 lbs 1.20 —
47° Be 1:2.9 turbid, dms., c.l., works 100 lbs. 2.25 —
dms., l.c.l., works 100 lbs 2.60 3.45
tanks, works 100 lbs 1.90 —
52° Be 1:2.4 turbid, dms., c.l., works 100 lbs 2.65 —
dms., l.c.l., works 100 lbs 3.00 3.50
tanks, works 100 lbs 2.30 —
Solid, 1:3.2, bgs. works ton.67.50 - —
Sodium silicofluoride, bgs., c.l., works lb. .065 - —
bgs., l.c.l., works lb. 725- —
Sodium silicofluoride in dms. 0.4c. per lb. higher
Sodium stannate, dms. works, frt. alld. E lb. .741 - .682
Sodium sulfa drugs (see Sulfa name)
Sodium sulfanilate bbls. works lb. .22 - —
Sodium sulfate NF VII, dried, powd., dms lb. .22½- —
Tech., anhyd. bgs. c.l., dlvd E. ton.56.00 - —
Tech., detergent, rayon grade, bgs., c.l., works ton.38.00 - —
bulk, c.l., works ton.34.00 - —
USP cryst. fib dms lb .17½ .18
Sodium sulfhydrate, flake 70-72%, dms. c.l. works, frt. equald lb. 07¼- —
dms., l.c.l. same basis lb. 08¼- —
Liq. 40-44% tanks, works, 100% basis ton 130.00 —
Sodium sulfide flake, dms., c.l., works E. frt equald lb .06 - —
dms. l.c.l. same basis lb .07 - —
Fused bbls. c.l. works, E., frt. equald lb. 05½ - —
bbls l.c.l. same basis lb 06½- —
Sodium sulfite, anhyd., tech., bgs., c.l., works 100 lbs. 3.50 - —
bgs. t.l. same basis 100 lbs 4.00 —
Sodium sulfite anhyd., powd., bgs., c.l., works 100 lbs 7.55 —
bgs l.c.l. same basis 100 lbs 7.95 —
Sodium sulfocyanide CP (see Sodium thiocyanate)
Sodium tetraborate (see Borax).
Sodium tetrasulfide liq. 40%, dms., c.l., works frt equald lb .04½- —
dms. l.c.l same basis lb .05½- —
Sodium thiocyanate, purified, cryst., 250-lb dms lb. .90 - —
Tech anhyd. dms. 1 ton lots or more, works lb. .367 - —
dms., less than ton lots, works lb. .387 - —
Sodium thiosulfate NF cryst. bbls. lb. .13½- —
Tech anhyd 100-lb bgs. c.l., t.l., frt equald 100 lbs 7.75 —
100-lb bgs l.c.l., t.l., frt equald 100 lbs 8.15 - —
photograde, 64-lb. bgs., c.l., t.l., frt. equald lb. .0775- —
64 lb bgs l.c.l., t.l., frt. equald lb. .0815- —
Sodium thiosulfate, tech., pentahydrate, photo grade, 100-lb. bgs., c.l., t.l., frt. equald, 100 lbs. 4.95 - —
100-lb. bgs., l.c.l., t.l.l., frt. equald 100 lbs 5.20 —
Sodium titanate ctns. c.l., works. lb. 14¼ —
ctns. 5-ton lots works lb. 14½ —
ctns. 1 ton lots or less, works lb 14¾ —
Sodium trichloroacetate, 90%, 100-lb dms. c.l. frt alld E. lb. .35 —
50-lb dms. c.l., frt. alld. E lb .35½- —
10 lb ctns. c.l. frt alld E lb 42 —
Prices on Sodium trichloroacetate W of the Rockies are 1¾c per pound higher
Sodium tripolyphosphate bgs., c.l. works, frt. equald 100 lbs. 7.90 - —
bgs., l.c.l., same basis 100 lbs 8.65 - —
bulk, hopper cars, same basis, 100 lbs. 7.35 - —
Sodium trisilicate, powd., 1:3.2, bgs., c.l., works 100 lbs. 8.95 - —
bgs., l.c.l., works 100 lbs. 9.70 -13.13
dms., c.l., works 100 lbs. 9.45 —
dms., l.c.l., works 100 lbs.10.20 -10.60
Sodium tungstate, tech., kgs. dlvd. E lb. 1.32 - —
Sodium-ammonium phosphate, purif., cryst. dms., works lb. .52 - —
Sodium-carboxymethyl cellulose (see CMC).
Sodium-cinchophen (see Cinchophen-sodium).
Sodium formaldehyde sulfoxylate, dms., t.l., dlvd lb. .22½- —
dms., l.t.l., same basis lb. .23 - —
Sodium-zirconyl sulfate, fib dms., 1,000-lb lots or more works lb. .28 - —
fib. dms., smaller lots, same basis lb .30 - —
Solvent naphtha, coaltar, high-flash, tanks, frt equald gal. .30 .35½
Solvent naphtha, petroleum, straight aromatic, 310°-360°F b.r., 14°-16°C. m.a.p., tankcars, New Jersey and New York gal. .29 - —
Houston, Texas gal. .29 - —
355°-420°F b.r., 17°-18°C. m.a.p., tankcars, New Jersey and New York, gal. .30 - —
Houston, Texas gal. .30 - —
Solvent naphtha, petroleum, partial aromatic, 211°-265°F b.r., 31°C. m.a.p. tankcars, New Jersey and New York gal. .235 —
286°-340°F b.r., 22°C m.a.p., tankcars, New Jersey and New York gal. .275 - —
319°-380°F. b.r., 27° C. m.a.p., tankcars, New Jersey and New York gal. .27 - —
322-395°F b.r., 28°C m.a.p., tankcars, New Jersey and New York gal. .28 - —
Sorbitan monostearate fib dms., 20,000-lb lots, works lb. .33½- —
10,000 to 20,000-lb. lots, works. lb. .35½- —
fib. dms., smaller lots, works lb. .38½- .40½
Sorbitan tristearate fib dms. 20,000-lb lots works lb. .34 - —
fib dms. 10,000 to 20,000-lb lots, works lb. .36 - —
fib. dms., smaller lots, works lb. .39 - .41
Sorbitol, NF reg., 70% aqueous, dms., c.l., works lb. .18 - —
dms., l.c.l works lb. .19 - —
tanks, works lb. .16¼- —
cryst. resin grade, pellets, dms., c.l. works lb. .23 - —
dms. 1 to 5-ton lots, works. lb .25 .26
powd., dms., c.l., works lb. .38½- —
dms., 10,000 to 20,000 lb. lots, works lb. .40½- —
Sorbitol, soln., comi., aqueous, dms., c.l., works lb. .26 - —
dms., l.c.l., works lb. .27 - —
tanks, works lb. .23¼- —
Soya protein, chemically isolated, old process, bgs., c.l., works. lb. .23 - —
bgs., l.c.l., works lb. .23¼- .23½
Chemically isolated, new process, bgs., c.l., works lb. .20 - —
bgs., l.c.l., works lb. .20¼- .29½
Soybean meal, 44%, bulk, unrestricted, Decatur ton.73.00 - —
Soybean oil, crude, tanks, Decatur, lb. .12⅞- —
Foots, soapstock acid 95%, tanks, New York lb. .07⅛ Nom.
Soybean oil, alkali, refd., dms. lb. .17175- —
tanks lb. .15175- —
Clarified, dms. lb. .16675- —
tanks lb. .14675- —
Salad, refd., dms. lb. .17¼- .17½
tanks lb. .15¼- —
Soybean oil acids, dbl. dist., dms., lb. .16¾- .19¼
tanks lb. .14¼- —
S. D., dms lb. .15½- .18
tanks lb. .13 - —
Sparteine sulfate, cns., 100 oz. or more oz. .80 - —
Spearmint leaves, dom bls lb 75 - —
Spearmint oil, NF, dms lb. 5.25 - —
Sperm oil, bleached winter, 45°-dms lb. .1675- .1775
tanks lb. .1475- —
Nat., winter 45°, dms lb. .1575- .1675
tanks lb. .1375- —
Spermaceti wax, blocks, cs. lb. .32 .33
Cakes, cs. lb. .33 .34
Spruce oil, cns., dms lb 2.10 3.55
Squill, white, bls. lb. .16 .18
Powd., bbls, bxs lb. .17 .20
St John's bread, edible, bls lb. .17 —
Stannic chloride, anhyd., dms., works lb. .845 - .867
Stannic oxide, dms., dlvd lb. 1.092 - 1.305
Stannic chloride, anhyd., dms., works lb. — —
Stannic oxide, dms., dlvd lb. — —
Stannous chloride, anhyd., dms lb. 1.056 - 1.311
Stannous sulfate, works lb. 1.108 - 1.148
Star root (see Helonias root)
Stargrass root (see Aletris root.)
Staveacre seed, bgs lb. .60 .61
Stearic acid, dbl., pressed, bgs lb. .18 - .21½
Single-pressed, bgs. lb. .17½- .20
Triple-pressed, bgs. lb. .19¾- .22¼
Stoddard solvent, petroleum tanks, east coast, New Jersey, New York gal. .18 —
tanks, Houston gal. .1475- —
tanks, group 3 gal. 12975- —
Stramonium leaves, bgs lb. .16½- .18
Streptomycin sulfate, bulk gram. .03 - —
Strontium bromide, NF, cryst., gran. 150-lb dm. frt. equald lb. 1.00 - —
Strontium carbonate, pure, cns. 2-ton lots or more, works lb. .35 - —
dms. 1-ton lots, works lb. .37 - —
Tech., dms. works lb. .19 - —
Strontium chromate fib dms. dlvd. lb .48 - —
Strontium iodide jars, 25-lb lots lb 3.57 - —
Strontium nitrate bgs. c.l. works 100 lbs.11.00 - —
bgs. l.c.l. works 100 lbs.12.00 - —
Strontium salicylate NF, dms lb 1.88 - —
Strontium sulfate air floated, 90%, 325 mesh bgs., works. ton.56.70 66.15
Strophanthin G (see Quabain, USP)
Strophanthin K bots. oz.25.00 -25.50
Strophanthus seed, Kombi, biologically tested, bgs lb 2.50 3.00
Styrax gum USP cs lb 4.50 5.50
Styrene monomer, polymer grade, 99.6%, dms., c.l., dlvd lb. .17 - —
dms l.c.l. same basis lb .19 - —
tanks, frt equald. lb. .13 - —
Styrene monomer, tech., 99.2%, dms. c.l., dlvd lb. .15 - —
dms., l.c.l., same basis lb. .17 - —
tanks, frt. equald lb. .1099- —
Above prices are adjusted for each calendar quarter on the basis of cost of benzene in the range of 31c. to 34c. a gallon and petroleum refining labor.

Styrolyl acetate, bots. lb. 1.03 - 1.10
Succinic acid, purif., cryst., dms., t.l., frt. alld. lb. .62 - —
dms., l.t.l., same basis lb. .63 - .75
Succinic anhydride, dms., c.l., t.l., dlvd lb. .51 - —
dms., l.c.l., same basis lb. .52 - —
Sucrose, refd., white, bgs., refy E. lb. .0940- —
Sucrose acetate, isobutyrate, 90%, dms. t.l., dlvd lb. .33½- —
dms., l.t.l., same basis lb. .35 - —
tanks, same basis lb. .31 - —
100%, t.l., dms., dlvd. lb. .35½- —
l.t.l., dms., same basis lb. .37 - —
Sucrose octa-acetate, denaturing grade, 100-200-lb. lots, bgs. l.c.l., works lb. 1.00 - —
Sugar (see Sucrose).
Sugar cane wax, dom., refd., slabs, 80-lb ctns., works lb. .60 - .65
80-lb ctns. spot lb. .65 - .75
Sulfabenzamide, dms. kilo. 8.80 - 9.90
Sulfabenzamide-sodium, dms. kilo. 9.00 -10.10
Sulfacetamide, USP, fib dms kilo. 6.61 - 6.83
Sulfacetamide-sodium USP, fib. dms kilo. 8.15 - 9.25
Sulfadiazine, USP, microcrystals, dms kilo.23.35 -24.45
USP, powd., dms. kilo.22.60 -23.70
Sulfadiazine-sodium, USP, dms kilo.24.80 -25.90
Sulfaguanidine, NF X, dms kilo. 5.50 6.60
Sulfamerazine, USP, microcrystals, dms kilo.23.50 - —
Sulfamerazine-sodium, USP, powd., dms kilo.24.80 25.90
Sulfamethazine, USP XV, microcrystals, dms kilo.19.65 -20.75
USP XV powd., dms kilo.18.75 -19.85
Sulfamic acid, cryst, dms., c.l., t.l., works 100 lbs.16.00 —
dms., l.c.l., t.l.l., works 100 lbs.17.50 18.50
Gran., dms., c.l., t.l., works. 100 lbs.14.75 —
dms., l.c.l. t.l.l., works 100 lbs.16.25 -17.25
Sulfanilamide NF reg. 1,000 lb., fib. dms., frt. equald lb. 1.75 - —
NF, reg., smaller lots, fib. dms., frt. equald lb. 1.80 - —
Sulfanilamide quinoxaline, veterinary dms kilo.16.28 - —
Sulfanilic acid, tech. dms. c.l., frt. alld lb. .21 - —
dms., l.c.l., frt alld lb. .23 - —
Sulfapyridine, USP XV, powd., bots., tins kilo.15.45 -16.55
Sulfapyridine-sodium, monohydrate, dms kilo.16.55 -17.65
Sulfathiazole, NF X, microcrystals, dms kilo. 6.25 6.90
NF X, powd. dms. kilo. 5.50 6.15
Sulfathiazole-sodium, NF X, dms., 1,000-lb lots or more lb. 2.35 - —
Sulfur, comi. flour, bgs., mines. 100 lbs. 2.35 - —
bbls., mines 100 lbs. 3.30 - —
lump, bgs., mines 100 lbs. 2.25 - —
bbls., mines 100 lbs 2.80 - —
Sulfur, crude, dom. bright, bulk, f.o.b. cars, mines long ton.23.50 - —
export, f.o.b. vessels, Gulf ports. long-ton.25.00 - —
US and Canada, t.o.b vessels Gulf ports long-ton.25.00 - —
Domestic dark sulfur prices are $1 per long-ton lower
Sulfur, crude, imp. Mexican, bulk, filtered, f.o.b., vessel, Coatzacoalcos long-ton.24.00 - —
Mexican dark sulfur price is $1 per long-ton lower.
Sulfur, refd., flowers, NF, bgs., mines 100 lbs. 5.65 - —
bbls., mines 100 lbs. 7.00 - —
flour, light, bgs., mines 100 lbs. 5.25 - —
bbls., mines 100 lbs. 6.25 - —
lump, bgs., mines 100 lbs. 4.95 - —
rolls, bgs., mines 100 lbs. 5.50 - —
bbls., mines 100 lbs. 6.25 - —
salt block, bgs., mines 100 lbs. 4.65 - —
virgin block, bbls., mines 100 lbs. 4.70 - —
Sulfur, rubbermakers, comi., reg., bgs., mines 100 lbs. 2.45 - —
bbls., mines 100 lbs. 3.70 - —
98-100%, passing through 325 mesh, bgs. mines 100 lbs. 2.55 - —
bbls., mines 100 lbs. 3.80 - —
Refd., bgs., mines 100 lbs. 4.90 - —
bbls., mines 100 lbs. 6.05 - —
treated, 2.5% mineral oil, bgs., mines 100 lbs. 2.75 - —
bbls., mines 100 lbs. 4.00 - —
Sulfur dichloride, ret. dms., c.l., works, frt. equald lb. .05½- —
ret. dms., l.c.l., same basis lb. .06¾- —
tanks, same basis lb. .04½- —
Sulfur dioxide, liq. comi., cyls., works, frt. equald lb. .10 - .13
multi-unit cars, works lb. .0535- —
tanks, works lb. .045 - —
refrigeration, cyls., dlvd lb. .33 - —
Sulfur monochloride, 55-gal. non-ret. dms., c.l., frt. equald lb. .05½- —
dms., l.c.l., same basis lb. .06¾- —
tanks, same basis lb. .04½- —
Sulfuric acid, 60° Be, cbys., c.l., works 100 lbs. 2.00 - —
cbys., l.c.l., works 100 lbs. 2.30 - —
tanks, works ton.18.60 - —
66° Be, cbys., c.l., works 100 lbs. 2.25 - —
cbys., l.c.l., works 100 lbs 2.55 - 3.35
tanks, works ton 22.35 - —
93%, tanks, works, East ton.23.50 - —
99% tanks, works, East ton.23.70 - —
100%, tanks, works, East ton.23.95 - —
Sulfuric acid, California works, tanks ton.26.45 - —
CP, NF consumers cbys., c.l., frt. equald lb. .12¾- —
Consumers' cbys., l.c.l., same basis lb. .14¼- .14¾
5-pt. bots. extra. cs., c.l., works, frt. alld lb. .16¼- —
5-pt. bots., extra. cs., l.c.l., same basis lb. .17¾- .18¾
Sulfuric acid, fuming (oleum), 20%, tanks, works ton.25.00 - —
40%, tanks, works ton.29.00 - —
65%, tanks works ton.39.50 - —
Superphosphate, run-of-pile under 22% a.p.a., pulv., bulk, c.l., Baltimore unit-ton. .90 - .93
bulk, c.l., Carteret, N. J. unit-ton. .90 - .93
Superphosphate, triple, 48% or more a.p.a., pulv., bulk, c.l., East Tampa, Fla. unit-ton. 1.00 - —
bulk, f.o.b. vessel at Fla unit-ton. 1.05 - —
Sweet birch oil, USP, northern, cns lb. 4.00 - 9.50
USP, southern, cns lb. 2.00 3.05

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2,4,5-T, dms., c.l., works, frt. equald. lb. 1.18 - —
dms., l.c.l., same basis lb. 1.25 - —
2,4,5-T, isopropyl ester, dms., c.l., works, frt. equald lb. 1.24 - —
dms., l.c.l., works lb. 1.29 - —
Talc, dom., fibrous, grd., bgs., c.l., works, New York ton.28.00 - —
bgs., l.c.l., works ton.31.00 -36.00
fibrous, 99.5%, 325 mesh, bgs., c.l., works, New York ton.31.00 - —
bgs., l.c.l., works ton.34.00 - —
Talc, dom., fibrous, 99.95%, 400 mesh, micronized, bgs., c.l. works ton.38.00 - —
625 mesh, micronized, bgs., c.l., works ton.80.00 - —
Talc, dom., ord., Calif., grd., bgs., c.l., works ton.34.00 -39.50
Vermont, off-color, grd., bgs., c.l., works ton.19.40 - —
bgs., l.c.l., works ton.37.00 - —
Imp., Canadian, grd., bgs., c.l., mines ton.20.00 -35.00
tanks, works lb. .02⅞- .03⅛
Tall oil, crude, tanks, works lb. .03¼- —
Acid, refined dms., c.l., works lb. .08¾- .09¼
tanks, works lb. .07½- .08½
Dist., depending on grade, dms., c.l., works lb. .06½- .09¼
tanks, works lb. .05¼- .08
Tall oil fatty acids, dms., c.l., works. lb. .08 - .10
dms., l.c.l., works lb. .08½- .10½
tanks, works lb. .06 - .08½
Tallow, edible, tanks, dlvd lb. .10 Nom.
Inedible, fancy, bleachable, tanks, lb. .08 - .08⅛
fancy, guaranteed, bulk, f.o.b. steamer lb. .08½ Nom.
dms., f.a.s. lb. .09½ Nom.
tanks, dlvd. lb. .08¼- .08⅜
No. 1, dlvd lb. .07½- .07⅝
Prime, tanks, dlvd lb. .07¾- .07⅞
Special tanks, dlvd. lb. .07⅝- .07¾
Sulfonated, 25%, bbls., l.c.l. lb. .08½- .08¾
50%, bbls., l.c.l. lb. .10½- .11
Tallow acids, dist., dms. lb. .14½- .17
tanks lb. .12 - —
Hydrogenated, dms. lb. .16¾- .19¼
Tallow oil, acidless, dms., c.l. lb. .14 - —
dms., l.c.l. lb. .16 - —
tanks lb. .12½- —
Tangerine oil, Florida, dms lb. 4.75 - —
Tankage, animal, feeding, 9-11% ammonia, New York bulk unit-ton. 4.75 - 5.00
Tannic acid, NF, fluffy, bbls., 1,000-lb lots lb. 2.05 - —
bbls., smaller lots lb. 2.06 - 2.07
powd., bbls., 1,000-lb. lots lb. 1.95 - —
bbls., smaller lots lb. 1.96 1.99
Tech., dms lb. 1.05 —
Tansy oil, dms lb. 6.60 8.00
Tar acid oil, 15-18%, dms., c.l., dms., l.c.l., same basis gal. .55½- —
tanks, same basis gal. .43½- —
25-28%, dms., c.l., frt. equald basis gal. .53½- —
dms., l.c.l., same basis gal. .62 - —
tanks, same basis gal. .50 - —
50-53%, dms. c.l., same basis gal. .75 - —
dms., l.c.l., same basis gal. .77 - —
tanks, same basis gal. .65 - —
Tar, coal (see Coaltar).
Tartar emetic (see Antimony potassium tartrate).
Tartaric acid, NF 100-lb bgs., c.l., frt. equald lb. .41 - —
bgs., 10,000 lbs. 1 shipt., same basis lb. .43 - —
bgs., smaller lots, same basis lb. .47 - —
Terpine hydrate, NF, cryst., powd., 100-lb. fib. dms lb. 70 - —
Terpineol, extra, dms lb. .50 - .60
Prime, dms. lb. 40 - .50
Terpinyl acetate, extra, cns., dms. lb. .64 - 75
Prime, dms lb 53 56
Terpinyl propionate, dms. lb. 1.65 1.70
Testosterone, USP, bots. gram. No prices.
Testosterone propionate, USP bots. gram. No prices.
Tetrachloroethane, dms., works lb. .14½- —
Tetrasodium pyrophosphate (see Sodium pyrophosphate)
Tetrachlorethylene, tech. (see Perchloroethylene)
Tetrachloroethylene, USP, 55-gal. dms., c.l., t.l., works lb. .20½- —
dms., l.c.l., works lb. .22 - .23½
Tetraethyl orthosilicate, dms., c.l., dlvd. E lb. .60 - —
dms. l.c.l. dlvd. E lb. .61½- —
Tetraethyl pyrophosphate, 40%, cns., dms., frt. equald lb. .75 - —
Tetraethylenepentamine, dms., c.l., dlvd. E lb. .53½- —
dms., l.c.l., dlvd. E lb. .55 - —
tanks, dlvd. E lb. .51 - —
Tetraethylthiuram disulfide, tech., dms., frt. alld lb. 1.04 - —
Tetrahydrofuran, dms., c.l., t.l., works lb. .36½- —
dms., l.c.l., or l.t.l., works lb. .37 - —
tanks, works lb. .35 - —
Tetrahydrofurfuryl alcohol, dms., c.l., t.l., Memphis, Tenn. lb. .31½- —
dms., l.c.l., Memphis, Tenn lb. .32½- —
dms., c.l. t.l., Newark, N. J. lb. .33½- —
Tetrahydrofurfuryl alcohol, dms., l.c.l., Newark, N. J. lb. .28½- —
tanks, dlvd. E. of Denver lb. .25 - —
tanks, dlvd. E of Denver lb. .26 - —
Tetranydrophthalic annydride, dms., c.l. t.l., frt. alld. E lb. .39 - —
l.c.l., t.t.l., same basis lb. .41 - —
Tetrapotassium phosphate (see potassium phosphate).
Thallium metal, dlvd lb. 7.50 -10.00
Thallium sulfate, 99%, bots., dlvd. lb 5.00 -10.00
Theobromine, NF, fib dms., 100-lbs., f.o.b., works lb. 4.10 - 4.15
Theobromine and sodium acetate, USP, fib dms. 500-lbs. works lb. 6.45 - —
Theobromine, sodio-salicylate, NF, fib. dms., 500-lbs., works. lb. 3.80 - —
Theophyline, USP, anhyd., 100-lb. dms., frt alld lb. 3.65 - —
Thiamine hydrochloride, USP, fib. dms., frt alld kilo.36.00 - —
USP, ampule grade, fib., dms., frt. alld kilo.38.00 - —
Thiamine mononitrate, USP, fib dms., frt alld kilo.36.00 - —
Thiocarbanilide, dms., ton lots lb. .74 - —
dms., less ton lots lb. .76 - —
Thiothiophenylamine (see Phenothiazine).
Thioflavin green toner, brilliant, molyhdated, PMA, kgs., works lb 5.20 - —
Tungstated, PTMA, kgs. works lb 6.20 - —
Thioglycolic acid, refd., 55 gal dms., ton lots, 100% basis lb. 1.15 - —
Thiosalicylic acid, 80%, dms., 1,000-lb., lots, works lb. 4.00 - —
Thiourea, tech., bgs., t.l., frt. alld. lb. .30 - —
bgs., ton lots, same basis lb. .32 - —
bgs., less than ton lots, same basis lb. .33 - —
Thorium nitrate, purif., fib dms., 100-lb lots or more, works lb 3.50 - —
dl-Threonine, dms., 25 kilos, works, kilo.115.00 - —
Thyme leaves, French, triple sifted extra, bgs lb .27 - —
Spanish, extra, bgs lb. .12 - —
triple sifted, bgs lb. .25 - —
Spanish, bgs. lb. .09 —
Thyme oil, NF, red, cns., dms. lb. 3.35 - 3.60
NF, white, cns lb. 3.60 - 3.95
Tech., white, cns lb. .80 - 1.10
Thymol, fib dms., 25-lbs., f.o.b. works lb 2.45 - —
Thymol iodide, NF, dms. 100-lbs f.o.b. works lb 7.30 - —
Timbo root (see Cube root).

Tin chloride (see Stannous chloride, anhyd.).
Tin crystals (see Stannous chloride, hydrous).
Tin metal (Straits) ..... lb. 1.10 - —
Tin oxide (see Stannic oxide).
Tin sulfate (see Stannous sulfate).
Tin tetrachloride, anhyd. (see Stannic chloride, anhyd.).
Titanium dioxide, anatase, ceramic, bgs., c.l., dlvd lb. .25½- —
bgs., l.c.l., dlvd. ..... lb. .26½- —
reg., bgs., c.l., dlvd. ..... lb. .25½- —
bgs., l.c.l., dlvd. ..... lb. .26½- —
metallurgical, nat., bgs., c.l., f.o.b. Jacksonville Fla. ton. 180.00 - —
Titanium dioxide, metallurgical, nat., bgs., 5-ton lots, Niagara Falls, N. Y. ton. 205.00 - —
bgs. ton lots, same basis. ton. 215.00 - —
Milled metallurgical titanium dioxide $7.50 per ton higher
Titanium dioxide, rutile, nonchalking, bgs., c.l., dlvd E lb. .27½- —
bgs., l.c.l., dlvd. E lb. .28½- —
Titanium dioxide-calcium pigment, 30% Ti $O_2$, reg., bgs., c.l., dlvd lb. .09¾- —
bgs., l.c.l., works lb. .09⅞- —
50% Ti $O_2$, high-tinting, dms., c.l., lb. .14¾- —
dms., l.c.l. lb. .14⅞- —
Titanium hydride, powd., dms., works lb. 8.10 9.00
Titanium tetrachloride, tech., dms., c.l., works lb. .26 —
dms., l.c.l., works ..... lb. .27½- .29
tanks, works ..... lb. .20 - —
Tobias acid, dms., c.l., t.l., 20,000 min., f.o.b. plant, frt. alld. E lb. .81 - —
dms., l.c.l., l.t.l., 5,000 lbs- 19,999 lbs., same basis lb. .81½- —
dms., l.c.l., l.t.l., less than 5,000 lbs., same basis lb. .84 - —
For west coast delivery add 2c. per lb.
d-a-Tocopherols, NF, mixer, conc., pure basis, bots kilo. 67.00 - —
d-a-Tocopheryl acetate, NF, conc., pure basis, bots kilo. 122.00 - —
d-a-Tocopheryl acid succinate, cryst., bots kilo. 109.00 - —
dl-a-Tocopherol, bots. kilo. 99.00 - —
dl-a-Tocopheryl acetate, bots kilo. 90.00 —
25% dry, powd., bots ..... kilo. 22.50 -24.00
33⅓% dry, powd., bots. ..... kilo. 30.00 -31.50
o-Tolidine base, dry, kgs., 100% basis lb 1.55 —
Paste, kgs., 100% basis lb 1.50 —

**TOLUOL**

**Toluol quotations, both coaltar and petroleum, may be found under Toluene.**

o-Tolidine hydrochloride paste, kgs., 100% basis lb. 1.50 - —
Tolu balsam, cns ..... lb. 4.00 - —
Toluene, coaltar, indust., or nitration, tanks, dlvd. E. of Rockies gal. .25½- —
Toluene, petroleum, indust., tanks, f.o.b., frt. equald gal. .23 - —
p-Toluenesulfonamide, powd., dms., t.l., works lb. .60 - —
dms., t.t.l., same basis lb. .63 - —
Toluenesulfonic acid, 55-gal. dms., t.l., frt. alld lb .16 - —
1,000-lb or more, same basis lb. .18 - —
less than 1,000-lb., same basis lb. .23 - —
tanks, same basis lb. .14 - —
Toluenesulfonic acid in 10-gal. dms., 2c. per lb. more.
p-Toluenesulfonic acid mononydrate, dms., c.l., or t.l lb. .90 - —
dms., 125 lbs. to t.l. lb. 1.00 - —
m-Toluidine, dms., c.l., works, frt. alld lb. .83 - —
dms., l.c.l., same basis lb. .84 - —
tanks, same basis lb. .82 - —
o-Toluidine, dms., c.l., works, frt. alld lb. .30 - —
dms., l.c.l., same basis lb .31 - —
tanks, same basis lb. .28 - —
p-Toluidine, tech., flake, dms., frt. alld lb. .50 - —
Cast, dms., frt. alld. lb. .45 - —
p-Toluidine-m-sulfonic acid, dms., works lb. .92 - 1.04
Toluidine red toner, deep shades, kgs., works lb. 1.70 - —
Light shades, kgs, works lb. 1.70 - —
2,4-Tolylenediamine, cryst., fib. dms., l.c.l., frt. alld lb. 1.10 - —
Tonka beans, Angostura, cks. ... lb. 1.50 - —
Brazilian, Surinam, cs. ..... lb. 1.30 - —
Totaquine, 100-oz. lots, cns. ... oz. .42 - —
Toxaphene, dms., c.l., t.l., works. lb. .22 - —
dms., l.c.l., t.t.l., works ... lb. .28 - —
Tragacanth gum, No. 1, ribbons, cs lb. 4.10 4.20
No. 2, cs. ..... lb. 3.75 3.80
No. 3, cs. ..... lb. 3.40 3.65
USP, powd., bbls. lb 1.05 1.15
Triacetin, dms., c.l., dlvd. E. of Rockies lb. .38 - —
dms., l.c.l., same basis ..... lb. .39½- —
tanks, same basis ..... lb. .35½- —
Triallylamine, dms., c.l., dlvd lb. .985 - —
dms., l.c.l., dlvd. ..... lb. .995 - —
tanks, dlvd ..... lb. .96 - —
Tributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver. lb. .42½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .43½- —
tanks, frt. alld. E. of Denver lb. .40 - —
Tributyl phosphate, dms., c.l., works. lb. .52½- —
dms, l.c.l., same basis ..... lb. .53½- —
tanks, same basis ..... lb. .50 - —
Tributylamine dms., c.l., works lb. .67½- —
dms., l.c.l., same basis ..... lb. .69 - —
tanks, same basis ..... lb. .65 - —
Tributyrin dms. l.c.l. dlvd. lb. .69 - —
Trichloroacetic acid, tech., 300-lb. dms., c.l., f.o.b works lb. .52 - —
USP, 100-lb. dms., frt. equald lb. 1.25 - —
Trichlorobenzene dms. c.l., frt. alld. E. lb. .15 - —
dms., l.c.l. frt. alld. E. ..... lb. .16 - —
tanks, frt. alld. E. ..... lb. .13¼- —
Trichlorobenzene prices in the West 1¾c. higher.
1,1,1-Trichloroethane, dms., c.l., dlvd. lb. .13¼- —
dms., l.c.l., dlvd ..... lb. .16 - —
tanks, dlvd ..... lb. .12¼- —
1,1,2-Trichloroethane, dms., c.l., works. lb. .15½- —
dms., l.c.l., works ..... lb. .16¼- —
tanks, works ..... lb. .13½- —
Trichloroethylene dms., c.l., or t.l., dlvd lb. .12½- —
dms., l.c.l., dlvd. ..... lb. .14 - .14½
tanks, dlvd. ..... lb. .11¼- —
Trichloroisocyanuric acid dms., c.l., t.l., frt. equald lb. .65 - —
dms, l.c.l. same basis lb .75 - —
Trichlorophenoxyacetic acid (see 2,4,5-T).
Tricholine citrate, 65% soln., ret. chys., works, frt. adjusted. lb. 1.40 - 1.45
Tricresyl phosphate, coaltar, dms., c.l., dlvd lb. .35 - —
dms., l.c.l., dlvd. ..... lb. .36 - —
tanks, dlvd. ..... lb. .32½- —
Tricresyl phosphate, petroleum, dms., c.l., dlvd lb. .35 - —
dms., l.c.l., dlvd. ..... lb. .36 - —
tanks, dlvd. ..... lb. .32½- —
Tridecyl alcohol, mixed isomers, dms., c.l., dlvd. E lb. .22½- —
dms., l.c.l., dlvd. E ..... lb. .24 - —
tanks, dlvd. E ..... lb. .20 - —
Triethanolamine, dms., c.l., dlvd. E. lb. .24½- —
dms., l.c.l., same basis ..... lb. .26 - —
tanks, same basis ..... lb. .22 - —
Triethanolamine lauryl sulfate, dms., c.l., t.l., frt. alld lb. .25½ —
dms., t.t.l., frt. alld. .... lb. .26½- —
tanks, frt. alld. .... lb. .24½- —
Triethylamine, dms., c.l., dlvd E. lb. .50 —
dms., l.c.l., same basis ..... lb. .51½- —
tanks, same basis ..... lb. .47½- —
Triethyl citrate, refd., tech., non-ret. dms., c.l., frt. alld E. of Denver lb. .46¼- —
non-ret. dms., l.c.l., frt alld. E. of Denver lb. .47¼- —
tanks, frt. alld. E. of Denver. lb. .43¾- —
Triethyl phosphate, dms., c.l., dlvd. lb. .40½- —
dms., l.c.l., dlvd. ..... lb. .42 - —
tanks, dlvd. ..... lb. .38 - —
Triethylene glycol, dms., c.l., dlvd. E lb. .21 - —
dms., l.c.l., dlvd. E ..... lb. .22½- —
tanks, dlvd. E ..... lb. .18½- —
Triethylenetetramine, dms., c.l., dlvd. E lb. .51½- —
dms., l.c.l., dlvd. E. ..... lb. .53 - —
tanks, dlvd. E ..... lb. .49 - —
Triisobutylene, tanks, dlvd. ..... lb. .08 - —
Tri-isopropanolamine, dms., c.l., dlvd. E lb. .23¼- —
dms., l.c.l., dlvd. E. lb. .24¾- —
tanks, dlvd. E ... lb. .20¾- —
Trimethylamine anhyd., cyls., l.c.l., frt. equald, 100% basis lb. .30 - .305
tanks frt equald, 100% basis. lb. .26 - —
25-40% soln. dms. c.l., frt. equald, 100% basis lb. .35 - —
dms., l.c.l. frt. equald, 100% basis lb. .35½- —
tanks, 100% basis, frt. equald lb. .26 - —
Trimethylolpropane, dms., c.l., t.l., dlvd. E lb. .30½- —
dms., l.c.l., t.t.l., same basis lb. .31½- —
Trioxanes, pure, dms., c.l., t.l., works lb. .50 - —
dms., l.c.l., works lb. .51½- —
Tripentaerythritol, bgs., c.l., t.l., dlvd. E lb. .34 - —
bgs., l.c.l., t.t.l., dlvd. E lb. .35 - —
Triphenyl pnosphate, bbls., c.l., frt. equald lb. .41½- —
bbls. l.c.l., frt. equald lb. .43½- —
Triphenylguanidine, bbls., works lb. .90 - —
Tripropylene dms., c.l., dlvd. E gal. .44 - —
dms., l.c.l., same basis ..... gal. .54 - —
tanks, same basis ..... gal. .28 - —
Tripropylene glycol, dms., c.l., t.l., frt. alld. E lb. .20½- —
dms., l.c.l. t.t.l. frt. alld. E lb. .22 - —
tankcars and compartmented tankcars, frt. alld. E lb. .17½- —
Tripropylene glycol, tankwagon and compartmented, tankwagon, 1,000 gals., min. frt. alld. E lb. .18 - —
Tripropylene glycol prices 1c per lb higher in west
Trisodium phosphate (see Sodium phosphate tribasic).
dl-Trypophane, dms., 1 kilo, works kilo 154.00 —
Tung oil, dms., New York ..... lb. .27½ - .27½
tanks, imported ..... lb. .25½- .25¾
tanks, domestic, mills ..... lb. .25½ Nom.
Tungsten metal powd. 2.0-2.5 microns, dms works lb 4.25 —
Tungstic acid tech. dms., 1,000-lb lots, works lb 2.25 —
dms. smaller lots, works lb 2.45 —
Turkey red bbls, works lb .62 —
Turpentine, gum (see Protective Coatings market Naval Stores)
Turpentine oil NF cns. dms lb .28 .50
Tuscan red bbls frt equald lb .26 .32
Tyrothricin, USP, 1 to 5 kilos gram .50 —

## U

Ultramarine blue, cobalt type, dry or pulp 250-lb bbls., dlvd. E. of Rockies lb. .39½- .35
Ultramarine blue, jobbing types, dry, bbls., same basis lb. .16 - .22½
Regular types dry bbls. same basis lb .16 .37½
Ultramarine blue prices 1c. higher W. of Rockies.

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HUMBLE OIL & REFINING COMPANY
Esso

## Umber Pigment—Xylenol Fraction

| | | | |
|---|---|---|---|
| Umber pigment, burnt, American, bgs., c.l., works | lb. | .07½ | .07¾ |
| bgs. l.c.l. works | lb. | .07¾- | .08 |
| turkey-type, bgs. c.l., Boston, Bethlehem, Easton, Pa., Hiwassee, Va., N.Y. | lb. | .08¼- | — |
| Raw, American bgs works | lb. | 07¾- | .08¼ |
| Turkey type bgs works | lb | 08½ | .08¾ |
| Undecylenic acid 55-gal dms. f.o.b works | lb | 1.28 | — |
| Unicorn root, false (see Helonias root). | | | |
| Unicorn root, true (see Aletris root). | | | |
| Urea 46% N, indust bgs., c.l. t.l., f.o.b plant | ton | 100.00 | — |
| Feed grade, c.l., t.l., f.o.b plant, | ton | 95.00 | — |
| 45% N, agricultural, bgs., c.l. f.o.b plant | ton | 92.50 | — |
| Bulk, c.l., t.l., same basis | ton | 86.50 | — |
| Urea-ammonia liquor A, B, C & F grades N basis, tanks frt equald | ton | 120.00 | — |
| 37 grade tanks same basis | ton | 145.00 | — |
| Urethane USP dms, t.l., f.o.b., works | lb | 65 | — |
| dms, l.c.l., same basis | lb | 70 | — |
| Uva-ursi leaves, bls | lb | .12 | — |

## V

| | | | |
|---|---|---|---|
| Valerian root, Belgian bgs. | lb | .32 | — |
| Indian bgs | lb | 25 | — |
| dl-Valine, dms., 1 kilo, works | kilo | 37.00 | — |
| Vanadium pentoxide, tech., dms., works | lb. | 1.38 | — |
| Vandyke brown, bbls., works | lb. | 09½- | .12 |
| Vanilla beans, Bourbon, tins | lb. | 6.95 | - 7.10 |
| Mexican cuts, tins | lb. | 7.10 | - 7.40 |
| whole, tins | lb. | 7.50 | - 8.50 |
| Vanillin ex lignin, 100-lb. fib. dms., 2,000-lb. lots or more | lb. | 3.00 | — |
| less than 2,000 lbs | lb. | 3.20 | - 3.30 |
| Venetian red, jobbing, bgs., works. | lb. | .0475- | — |
| Venetian red, 20%, bgs., works | lb. | .0525- | — |
| 25%, bgs., works | lb. | .0575- | — |
| 30%, bgs., works | lb. | .06 | — |
| 35%, bgs., works | lb. | .0625- | — |
| 40%, bgs., works | lb | .0675- | — |
| Vetiver oil, Bourbon, cns | lb. | 17.00 | -17.25 |
| Haitian, cns. | lb. | 12.00 | -14.00 |
| Victoria blue toner, molybdated, PMA 250-lb. bbls., dlvd. E. of Rockies | lb. | 4.50 | 4.95 |
| Tungstated, PTMA, 250-lb bbls., dlvd. E. of Rockies | lb | 5.55 | — |
| Victoria blue toner, bbls., prices W of Rockies | 1c. higher | | |
| Vinyl acetate monomer, zone 1, 55-gal. dms., c.l., dlvd | lb. | .1810- | — |
| 55-gal dms., l.c.l., dlvd | lb. | .1960- | — |
| tanks, dlvd. | lb. | .1560- | — |
| tanktrucks less than 4,000 gal., dlvd | lb. | .1610- | — |
| Vinyl n-butyl ether, tech. dms., l.c.l., works | lb. | .50 | — |
| Vinyl chloride monomer, tanks, works, min. frt. equald E. | lb. | .0896- | — |
| Vinyl ether, USP, anethesia, bots., 50cc., hospitals | bot. | 1.12 | — |
| bots., 75cc., hospitals | bot | 1.56 | — |
| Vinyl ethyl ether, tech. dms., c.l., works | lb. | .30¼- | — |
| dms., l.c.l., works | lb. | .31 | — |
| tanks, works | lb. | .28¼- | — |
| Vinyl propionate monomer, dms., c.l., dlvd | lb. | .49 | — |
| dms., l.c.l., same basis | lb. | .50 | — |
| tanks, same basis | lb. | .47 | — |
| Vinyl trichloride (see Trichloroethane) | | | |
| 2-Vinylpyridine, 10 dms to tanks, works | lb | 1.20 | — |
| 1 to 9 dms., works | lb | 1.35 | — |
| tanks, works | lb. | 1.15 | — |
| Vinyltoluene, dms., c.l., f.o.b., dest. frt. paid, Zone 1 | lb. | .16½- | — |
| dms., l.c.l. same basis | lb | 18½- | — |
| tanks, same basis | lb. | .14 | — |

Zone 2 prices are 1c. per lb. higher.

Zone 1 is East of Rockies. Zone 2 is West of Rockies.

| | | | |
|---|---|---|---|
| Viosterol in nat. vegetable oil, 1,000,000 D units per gram, bots., lots of 10 billion USP units 1,000,000 units | | 02½- | — |
| Virginia type red, bbls., works | lb | 1.40 | — |
| Vitiamin A acetate, syn., cryst., beads, 500,000 A units per gram | gram | .07¼- | — |
| Vitamin A acetate, dry, 500,000 units per gram, kilo lots | kilo | 65.00 | — |
| 325,000 units per gram, same basis | kilo | 43.88 | — |
| 250,000 units per gram, same basis | kilo | 33.75 | — |

Dry vitamin A acetate in less than kilo lots, $1.25 to $2.50 per kilo higher.

| | | | |
|---|---|---|---|
| Vitamin A, liq in oil, 1,000,000 A units per gram 1,000,000 units. | | .09½- | — |
| Vitamin A palmitate, liq., 1,000,000-1,800,000 A units per gram 1,000,000 units. | | .09½- | — |

Vitamin $B_1$ (see Thiamine hydrochloride).

Vitamin $B_2$ (see Riboflavin and Yeast).

| | | | |
|---|---|---|---|
| Vitamin $B_{12}$, cryst., USP (cyanocobalamin) 1-50 grams vials, tins | gram | 45.00 | — |
| Vitamin $B_{12}$ 0.1% vitamin $B_{12}$, USP, adsorbed on gelatin, 100 and 500-gram bots on 1-5 kilo, dms., gram. | | .57 | — |
| Vitamin $B_{12}$ 0.1% vitamin $B_{12}$, USP, adsorbed on resin, 100 and 500-gram bots, 1-5 kilo dms gram. | | .57 | — |
| Vitamin $B_{12}$ oral grade solids in containers of 1 and 10 gram of $B_{12}$ activity gram. | | 52.00 | — |
| 0.1% trituration of cryst. $B_{12}$ with dicalcium phosphate or mannitol, 1-10 kilo. | | 52.00 | — |
| 0.1% trituration of cyanocobalamin, USP, with dicalcium phosphate or mannitol gram | | 52.00 | — |
| USP solution of cyanocobalamin (5,000 micrograms per cc.), 5-gram bots gram. | | 52.00 | — |
| Vitamin $B_{12}$ 0.1% cobalamin concentrate NF adsorbed on resin 500-gram bots 1-5 kilo, dms. frt alld gram. | | .57 | — |
| Vitamin $B_{12}$, 0.1% cobalmin concentrate in gelatin, 1-10 kilo, dms., frt. alld gram. | | .57 | — |

Vitamin C (see Ascorbic acid)

Vitamin D, (see Codliver and Fishliver oils, Calciferol and Viosterol)

| | | | |
|---|---|---|---|
| Vitamin D dry 850,000 units per gram, kilo lots | kilo | 42.50 | — |
| 850,000 units per gram less than kilo lots | kilo | 45.00 | — |

Vitamin E (see a-Tocopherol and Wheat germ oil).

Vitamin H (see Biotin)

Vitamin K, active (see Menadione).

| | | | |
|---|---|---|---|
| Vitamin $K_1$, 25-gram lots | gram | 4.50 | — |

Violet methyl toner (see Methyl violet toner).

VM&P naphtha (see Naphtha VM&P petroleum).

## W

| | | | |
|---|---|---|---|
| Wahoo root bark, bls. | lb. | 2.00 | 2.25 |
| Warfarin 0.5% dms. 50-lb. lots, dlvd | lb | 1.95 | — |
| dms. 25-49-lb lots, New York or Chicago | lb | 2.05 | — |
| dms. 5-24-lb lots, New York or Chicago | lb | 2.15 | — |
| Watchung-type reds, bbls | lb | 1.95 | — |

**WAXES**

**Wax quotations are listed individually. For example, prices on Wax, carnauba, may be found in the C's under Carnauba wax.**

| | | | |
|---|---|---|---|
| Wheat germ oil, 5-gal dms. | gal. | 12.25 | — |
| White lead (see Lead, white). | | | |
| White mineral oil (see Mineral oil, white). | | | |
| White pine bark, rossed, bls | lb | 21 | .22 |
| White precipitate USP powd., dms., 100 lbs. f.o.b works | lb | 5.50 | — |
| Whiting (see Calcium carbonate) | | | |
| Wild cherry bark, thin, nat., bls | lb. | .30 | — |
| Wintergreen oil USP nat northern, cns | lb | 6.35 | -17.50 |
| USP nat southern cns | lb | 3.75 | 7.00 |
| Wintergreen oil, syn. (see Methyl salicylate). | | | |
| Witch hazel bark, bls | lb | .30 | .35 |
| Witch hazel leaves, bls | lb | .75 | .80 |
| Wollastonite fine paint grade, bgs., c.l., works | ton | 41.00 | — |
| bgs., l.c.l., ex whse | ton | 51.00 | — |
| medium paint grade, bgs., c.l., works | ton | 29.00 | — |
| bgs., l.c.l., ex whse. | ton | 39.00 | — |
| Wood alcohol (see Methanol). | | | |
| Wood oil (see Tung oil). | | | |
| Woolfat crude (see Degras). | | | |
| Woolfat USP (see Lanolin). | | | |
| Wormseed Levant bgs | lb | 2.50 | — |
| Wormseed oil (see Chenopodium oil NF). | | | |
| Wormwood oil, cns | lb. | 4.75 | — |

## X

| | | | |
|---|---|---|---|
| Xylene, coaltar, indust., tanks, works: | | | |
| Bethlehem, Pa. | gal. | .29 | — |
| Birmingham dist. | gal. | .29 | — |
| Chicago dist | gal. | .28½- | — |
| Cleveland dist. | gal. | .29 | — |
| Geneva, Utah | gal. | .29 | — |
| Johnstown, Pa. | gal. | 29 | — |
| Lackawanna, N.Y. | gal. | .29½- | — |
| Lone Star, Tex | gal | .27 | — |
| Xylene, coaltar, Lorain, Ohio | gal. | .29 | — |
| Middletown Ohio | gal | 30 | — |
| Minnequa, Col | gal. | .29 | — |
| Philadelphia dist. | gal. | 29 | — |
| Pittsburgh dist. | gal | 29 | — |
| Sparrows Point, Md. | gal. | 29 | — |
| Terre Haute Ind. | gal | 29 | — |
| Youngstown Ohio | gal. | 29 | — |
| Xylene, petroleum, indust., tanks f.o.b works: | | | |
| Bayonne N J | gal. | .29 | — |
| Baytown Tex | gal. | .27 | — |
| Charleston, S. C. | gal. | .29 | — |
| Chicago, Ill | gal. | .28½ | — |
| Detroit, Mich., dlvd | gal. | .27½- | .29 |
| Houston, Tex. | gal. | .27 | — |
| Philadelphia Pa. | gal. | .29 | — |
| Providence, R I. | gal. | .30 | — |
| Sewell's Point, Va. | gal. | 28 | — |
| Wood River Ill | gal. | .28½- | — |
| m-Xylene, 95% dms., c.l., f.o.b., Richmond, Calif. | | 21 | — |
| dms. l.c.l. f.o.b., Richmond, Calif. | | 22 | — |
| tanks, frt. alld. | lb. | .19 | — |
| o-Xylene, dms., c.l., works | lb | 08 | — |
| dms., l.c.l., works | lb | 09 | — |
| tanks, works | lb | 06 | .06½ |
| p-Xylene dms. c.l., works | lb | 20 | — |
| dms., l.c.l., works | lb. | 21 | — |
| tanks, frt alld | lb. | .1645- | — |
| Xylenol, cryst., 45°-47°C., m.p., dms., l.c.l., works, frt. equald | lb. | .23 | — |
| 56°-58°C., m.p. dms. l.c.l., works, frt. equald | lb | 33 | — |
| 60°-62°C., m.p., dms., l.c.l., same basis | lb. | .40 | — |
| Xylenol fraction b.r 7°-9° C., dry above 227° C. dms., c.l., same basis | gal | 1.25 | — |
| dms., l.c.l. same basis | gal | 1.30 | — |
| tanks, same basis | gal | 1.05 | — |
| b.r 7°-9° C., dry at or below 227° C. dms c.l. same basis. | gal | 1.35 | — |
| Xylenol fraction, b.r 7°-9° C., dry at or below 227° C., dms., l.c.l. same basis | gal. | 1.40 | — |


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| | | | |
|---|---|---|---|
| 2,4-Xylidine, tech., dms., frt. alld. | lb. | 1.15 | — |
| 2,5-Xylidine, tech., dms., frt. alld. | lb. | 1.20 | — |
| Xylidines, mixed, o-m-p, dms., c.l., or t.l., works | lb. | .39 | — |
| dms., t.c.l., same basis | lb. | .40 | — |
| tanks, same basis | lb. | .38 | — |

**XYLOL**

**Xylol quotations, both coaltar and petroleum, may be found under Xylene.**

## Y

| | | | |
|---|---|---|---|
| Yara yara oil, cns. | lb. | 2.15 | 3.05 |
| Yeast, brewers, debittered, USP XV, Sacchomyces dlvd | lb. | .27 | — |
| primary, USP XV, 150 meg. $B^1$ per gram, 100-lb. dms | lb. | .47 | — |
| USP XV, 270 mcg., $B_1$ per gram, 100-lb. dms | lb. | .52 | — |
| Yeast, brewers, primary, USP, XV, 300 mcg., $B_1$ per gram, 100-lb. dms | lb. | .56 | — |
| Yeast, brewers, USP XV, 900 mcg, $B_1$ per gram, 100-lb. dms. | lb. | .60 | — |
| Torula, USP dlvd. | lb. | .18 | — |

**YELLOW PIGMENTS**

**Yellow pigment quotations are listed individually For example, prices on Yellow, benzidine, may be found in the B's under Benzidine yellow**

| | | | |
|---|---|---|---|
| Yerba santa leaves, bls. | lb. | .40 | .45 |
| Ylang Ylang oil, Bourbon, bots. | lb. | 7.00 | 22.00 |
| extra, bots. | lb. | 24.00 | 33.00 |
| Yohimbine hydrochloride, bots., tins. | oz. | 3.75 | 4.25 |

## Z

| | | | |
|---|---|---|---|
| Zein, 50-lb. bgs., c.l., t.l., f.o.b. works | lb. | .37 | — |
| 50-lb. bgs., smaller lots, f.o.b. works | lb. | .41 | .44 |
| Zinc acetate, NF, VIII, dms | lb. | .53 | — |
| Tech., dms., l.t.l., works | lb. | .2950 | — |
| Zinc borate, bgs., 1,000 lbs or more, works | lb. | .25 | — |
| bgs., less than 1,000 lbs., same basis | lb. | .27 | — |
| Zinc chloride, NF, gran., dms | lb. | .42 | — |
| NF, precip., powd., dms | lb. | .26 | — |
| Tech., soln., 50%, dms., c.l., works 100 lbs. | | 5.80 | — |
| dms., t.c.l., works 100 lbs | | 6.40 | — |
| tanks, works 100 lbs. | | 5.15 | — |
| fused dms. c.l. works 100 lbs. | | 10.70 | — |
| dms., t.c.l., works 100lbs. | | 11.20 | — |
| Zinc Chloride, tech. gran., fib. dms., c.l., works 100 lbs. | | 11.45 | — |
| fib dms. t.c.l. works 100 lbs. | | 11.95 | — |
| Zinc chromate bbls., dlvd. | lb. | .29 | — |
| Basic bbls. dlvd. | lb. | .34 | — |
| Zinc cyanide dms., 1,000-lb. lots or more, works | lb. | .55 | — |
| dms., smaller lots, works | lb. | .57 | — |
| Zinc dust coml. bbls., c.l., works. | lb. | .16 | — |
| Pigment, bbls., c.l., works | lb. | .15½ | — |
| bbls., l.c.l., works | lb. | .17¼ | — |
| Zinc fluoride, bbls., works | lb. | .49 | .50 |
| Zinc hydrosulfite, dms., c.l., frt. alld | lb. | .21½ | — |
| dms., t.c.l., frt. alld. | lb. | .23½ | — |
| Zinc metal, prime western, slabs, E. St. Louis | lb. | .11½ | — |
| Prime western slabs, New York. | lb. | .12 | — |
| Zinc naphthenate liq 8% Zn., dms., frt. alld | lb. | .27 | — |
| 10% Zn., dms., frt. alld. | lb. | .33 | — |
| Zinc nitrate, tech., flake, 100-lb. fib. dms., l.c.l. | lb. | .16½ | — |
| 300-lb. fib. dms, l.c.l. | lb. | .14½ | — |
| 300-lb. fib. dms., c.l. | lb. | .14 | — |
| Zinc oxide pigment, American process, lead-free bgs., c.l., f.o.b. works | lb. | .12½ | — |
| bgs., l.c.l., 10 tons or more, same basis | lb. | .13 | — |
| bgs., l.c.l., smaller lots, same basis | lb. | .13½ | — |
| Zinc oxide, leaded, 35%, bgs., c.l., mills, f.o.b. works | lb. | .14 | — |
| bgs., l.c.l., 10 tons or more, same basis | lb. | .14½ | — |
| pigment, American process, leaded, 50%, bgs., l.c.l., 10 tons or more, same basis. | lb. | .14½ | — |
| Zinc oxide, pigment, French process, green seal, bgs., c.l., f.o.b. works | lb. | .14½ | — |
| bgs., l.c.l. 10 tons or more, same basis | lb. | .13 | — |
| Zinc oxide, French process, green seal, bgs. l.c.l., smaller lots, same basis | lb. | .14½ | — |
| red seal, bgs. c.l. same basis. | lb. | .14½ | — |
| Zinc oxide, French process, green seal, bgs., l.c.l., 10 tons or more, same basis | lb. | .13 | — |
| bgs., l.c.l. smaller lots same basis | lb. | .13 | — |
| Zinc oxide, white seal, bgs., c.l., same basis | lb. | .14¾ | — |
| bgs., l.c.l., 10 tons or more, same basis | lb. | .15½ | — |
| bgs., l.c.l., smaller lots, same basis | lb. | .15¾ | — |
| Zinc oxide, USP dms., c.l., frt. alld. | lb. | .16 | — |
| dms., l.c.l., 10 tons or more, same basis | lb. | .16½ | — |
| dms., l.c.l., smaller lots, same basis | lb. | .17 | — |
| Zinc phenolsulfonate, NF, gran., dms | lb. | .45 | .46 |
| NF, powd., dms. | lb. | .48 | .49 |
| Zinc resinate, precip. 7.2-7.6% Zn., dms., frt. alld | lb. | .45 | — |
| Zinc silicofluoride, dms. works | lb. | 12½ | .14 |
| Zinc stearate, USP, ctns., c.l. | lb. | .41 | — |
| | lb. | .41 | — |
| ctns., t.c.l. | lb. | .42 | .46 |
| Zinc sulfate, powd., monohydrate, 36% Zn, bgs., c.l. dlvd.E | 100 lbs. | 8.00 | — |
| bgs., l.c.l., dlvd. E. | 100 lbs. | 9.00 | — |
| Zinc sulfate in bbls 40c higher. | | | |
| Zinc sulfide, pure, bgs., c.l., dlvd | lb. | .2530 | — |
| Zinc undecylenate, 75-lb fib. dms., f.o.b. works | lb | 2.04 | — |
| Zinc, yellow (see Zinc chromate) | | | |
| Zinc-ammonium chloride, bgs., c.l., works | 100 lbs. | 10.25 | — |
| bbls., c.l., works | 100 lbs. | 10.85 | — |
| bbls., l.c.l., works | 100 lbs. | 11.35 | — |
| Zinc-formaldehyde sulfoxylate, basic, 300-lb dms., frt. alld | lb. | .26 | — |
| Normal, 250-lb. dms., frt. alld | lb. | .55 | — |
| Zircon (G) gran., bgs., c.l., works. | lb. | .03⅛ | — |
| Zircon (G) gran., bgs., 5 tons to c.l., works | lb. | .03⅜ | — |
| bgs., 1 ton to 9,999-lb. lots, works | lb. | .04 | — |
| bgs., smaller lots, works | lb. | .06½ | — |
| Zircon (G), milled, bgs. c.l., works. | lb. | .04⅛ | — |
| bgs., 5 tons to c.l., works | lb. | .04⅜ | — |
| bgs., 1 ton to 9,999-lb. lots, works | lb. | .04⅝ | — |
| bgs., 500-1,999-lb. lots, works | lb. | .07½ | — |
| Zircon (G) in barrels 1c. higher. | | | |
| Zirconium acetate soln., 13% $ZrO_2$, dms., c.l. 30,000 lbs. min., works | lb. | .23 | — |
| Zirconium hydride powd. electronic grade, dms., works | lb. | 14.00 | 15.00 |
| Zirconium oxide, CP, white, grd., bbls. or bgs. works | lb. | 1.50 | — |
| Electric-fused lump, bgs. 500 to 1,999-lb lots, works | lb. | .48½ | — |
| bgs., smaller lots, works | lb. | .51 | — |
| milled, bgs., c.l., works | lb. | .62 | — |
| bgs., 5-ton lots, works | lb. | .62½ | — |
| bgs., 1-ton to 9,999-lb. lots, works | lb. | .63½ | — |
| bgs., 500 to 1,999-lb lots, works | lb. | .64 | — |
| bgs., smaller lots, works | lb. | .66 | — |
| Glass polishing grade, 94-97% $ZrO_2$, bgs., works | lb. | .55 | .65 |
| Opacifier grade, 85-90% $ZrO_2$, bgs., | lb. | .27 | .50 |
| Stabilized oxide, 91% $ZrO_2$, milled, bgs | lb. | .62 | .85 |
| Zirconium oxychloride, cryst., ctns., 5-ton lots, works | lb. | .37½ | — |

# Jobs & People

Emery Industries, Inc., Cincinnati, Ohio—**Joseph E. Quinty,** Chicago sales representative, has been elevated to assistant sales manager of the organic chemical division with headquarters in Cincinnati.

General Aniline & Film Corporation, New York—**Newman H. Giragosian** has joined the commercial development department of the chemical group as senior market research engineer in the business research section.

Koppers Company, Pittsburgh, Pa.—**R. F. Seubert,** manager of the applications laboratory, has been advanced to manager of product development. He is succeeded by **J. G. Pick** who was manager of the technical laboratory.

Minerals & Chemicals Philipp Corporation, Menlo Park, N. J.—**Michael Pavol** has been appointed to the newly-created position of technical service representative to the paper industry.

Pittsburgh Chemical Company, Pittsburgh, Pa., a subsidiary of Pittsburgh Coke & Chemical Company—**Richard E. Durr** has been appointed sales representative for the industrial chemicals division in the eastern territory.

Riches-Nelson, Inc., New York—**George E. Riches** has been decorated by the Belgian government as Chevalier de l'Ordre de la Couronne for promoting Belgian interests in this country.

Spencer Chemical Company, Kansas City, Mo.—**B. F. McAvoy** has been elevated from technical manager to assistant to the vice-president of the plastics division.


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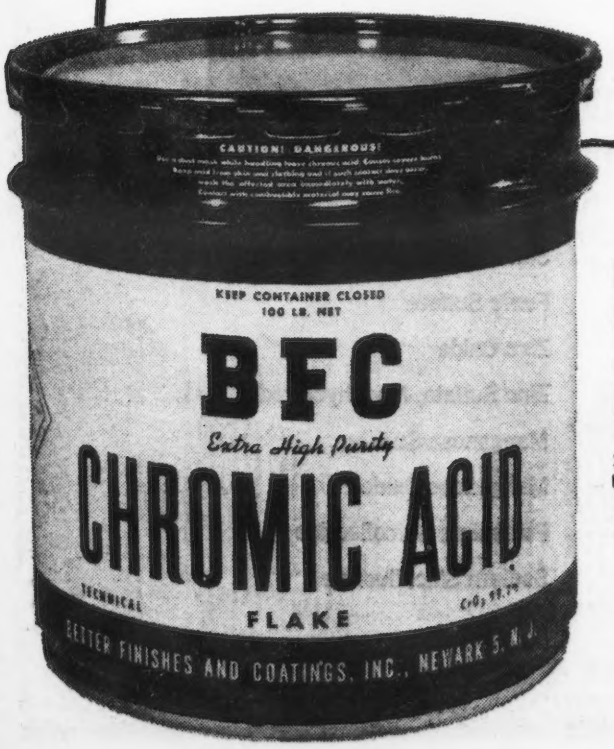


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## Heavy Chemicals

# Natural Sodium Sulfate Moving East? Trade Eyes Rayon, Soap and Paper

In contrast to last year, byproduct sodium sulfate supplies this season are proving adequate to meet the needs of detergent makers, but it's a situation that could change overnight. The problematical element is provided by the paper industry, whose low operating rate—down about 6 percent from 1960—has taken the pressure off sodium sulfate, permitting a slight build-up in the rayon byproduct. A sudden spurt in paper production, trade sources say, would quickly chew up this modest surplus, causing a repetition of last year's supply shortage.

Natural brine producers are watching the situation carefully, since it will be up to them to meet the deficit should a shortage develop. They note that rayon production is probably lower than last year and certainly not higher, while detergent production promises to show a modest increase. A spurt in paper operations to about 95 percent of capacity would be a signal that the pressure is on.

Last year byproduct was on allocation during the height of the season and a significant amount of natural sulfate was brought into the eastern market. This is expected to be a continuing trend, even if interrupted this year.

Though there are voices of dissent, the majority of trade sources feel that rayon's future is at best static—that it cannot keep pace with the growing demand for sodium sulfate.

The dissenting voices deserve to be heard, however. They say that nylon's gains in the tire cord field have been chiefly due to publicity, and now that the rayon makers have a dynamic promotional campaign under way, the tide will turn.

Indicative of the changed supply position of sulfate are latest figures from the Census Bureau showing producers' inventories at 53,277 tons on January 31 as against only 48,965 tons a year earlier. This was in spite of a decrease in production to 90,271 tons in January from 93,379 tons a year earlier.

### Price Trends

**Advanced**

Copper carbonate, dark dense, 55c. per 100 lbs.
Copper chloride, ½c. per lb.
Copper sulfate, cryst., 25c. per 100 lbs.
Monohydrated, 35c. per 100 lbs.
Tribasic, 50c. per 100 lbs.
Tin metal (Straits), 1c. per lb.
Salts, ½c. to ⅝c. per lb.

**Reduced**

None

**Comparative Price Indexes**

(100=1949 average)

| Last week | Prev. week | Last month | May 13, 1950 |
|---|---|---|---|
| 106.84 | 106.83 | 106.81 | 106.88 |

*For Current Prices see page 10*

## Acids

**Boric**—Tenor of trade comments has turned bullish in line with signs of general economic recovery. Orders and inquiries have picked up. Supplies are quite ample, prices steady.

**Chromic**—Automobile production and sales have improved, and household appliance accounts are starting to move. The outlook is better than it has been since a year ago, trade sources said.

**Hydrochloric**—Market on the east coast remains disorderly, but, by and large, producers are getting about what they have been for the acid. Business has improved, the steel upturn helping many.

**Nitric**—Merchant acid is finding more takers as evidence of economic recovery gathers.

**Sulfuric**—Steel production has finally hit a respectable stride—estimated last week at better than 65 percent of rated capacity.

Total production for the week (ended May 6) was 1,943,000 net tons, the American Iron & Steel Institute reports. This compares with 1,858,000 tons the previous week, and carries the year's production to date to 28,987,000 tons.

The latter figure compares with 45,877,000 tons in the comparable eighteen weeks of last year.

## Bases and Salts

**Caustic Soda**—Market is moving along nicely, starting its spring pick-up, with prices holding steady, supply in good balance.

**Chlorine**—Paper makers have disappointed some observers by the continued lag in output—still running at about 90 percent of capacity, as against almost 100 percent at this time last year. Supply is amply available, prices holding steady at the higher levels posted last Spring.

**Sodium Silicofluoride**—Water fluoridation demand holds steady right now, trade sources report. Prices have been long unchanged; supply continues in fair balance, although the threat of additional byproduct material always haunts the market.

**Copper Carbonate**—Quotations have been lifted 55c. a hundredweight to $34.90 for dark dense in truckloads, and $36.40 for smaller quantities.

**Copper Chloride**—Prices have been advanced ½ cent a pound across the board to reflect the one-cent advance in copper. New prices are 44c. to 44½c. for anhydrous cupric, 30¼c. to 30½c. for crystalline dihydrate, 38½c. to 39c. for dried crystalline, and 39.05c. to 42.05c. for cuprous.

**Copper Sulfate**—Monohydrated is up 35 cents a hundredweight to $23 for carloads; all grades of crystals are up 25 cents to $12.25 for carloads, and distributors' tribasic is up 50 cents to $28.10 a hundredweight for fifty-pound bags in carloads.

**Sulfur**—The following figures compiled by the Bureau of Mines, show production and shipments of sulfur during specified periods.

| | February | January |
|---|---|---|
| Native production | 357,078 | 400,433 |
| Shipments | 355,516 | 372,186 |
| Sales* | 351,559 | 371,280 |
| Stocks† | 3,763,228 | 3,697,709 |
| Recovered production | 61,625 | 66,343 |
| Shipments | 60,999 | 63,394 |
| Sales* | 60,936 | 65,449 |
| Stocks† | 111,650 | 110,361 |

* Calculated from production and change in stocks during the period.
† Producers stocks at mines or plants in transit, and in warehouse at end of period.

The following figures, compiled by the Bureau of Mines, show imports of Canadian and Mexican sulfur into the United States during specified period in long tons.

| | February | January |
|---|---|---|
| Ore | 7,206 | 6,837 |
| In any form | 42,224 | 63,471 |
| Total | 49,430 | 70,308 |
| *Dollar Value* | | |
| Ore | $153,268 | $149,237 |
| In any form | 859,381 | 1,484,920 |
| Total | $1,012,649 | $1,634,157 |

### *Paper Production Higher*

The American Paper & Pulp Association reported paper production for the week ended May 6 at 91.1 percent of theoretical capacity, as compared with the revised figure of 89.8 percent for the previous week and 97.3 percent for the corresponding week of last year.

## Nonferrous Metals

**Chromium** — Domestic consumption of chromite in February totaled 69,229 tons, up 4 percent from the previous month's 66,278 tons, the Bureau of Mines reports. Consumption of chromite for metallurgical and refractory purposes was up 14 percent and 7 percent, respectively, while consumption for chemicals dropped 20 percent.

In producing 8,440 tons of chemicals (sodium bichromate equivalent), a total of 10,988 tons of chromite was consumed, the Bureau reports. At the close of the month, a total of 16,843 tons of chemicals was on hand at producers' plants.

**Magnesium**—Commercial production of primary magnesium during the first quarter of 1961 was 9,990 tons, down 730 tons from the previous quarter, Mines Bureau

## Heavy Chemicals

reports. Output in March was 3,470 tons, as compared with 3,265 in February.

**Mercury** — Market steadied following its sharp decline. Prices held at a range of $200 to $202 a flask, large lots, prompt shipment.

**Tin**—Market continued to gain, prices closing at $1.10, up 1c. a pound.

**Zinc**—The industry enjoyed one of its better months in April: Production was tidy, shipments rose, and stocks finally showed a modest decline.

In a report from American Zinc Institute, output is tallied as 73,063 tons as against 78,007 in March. Shipments, including exports, reached 76,699 tons, up from 70,074 in March, and stocks closed at 219,253 tons, down from 222,889 on March 31.

Production for the year to date stands at 298,632 tons; shipments at 270,189 tons, indicating a fair balance. Daily average production stands at 2,489 tons.

Production in April by grades was as follows:

- Special high grade, 32,883 tons, as compared with 35,177 in March.
- High grade, 4,868 tons, as against 4,854.
- Intermediate, 4,868 tons, as against 4,854.
- Prime western (including select and brass special), 34,886 tons, as against 37,333.

### Heavy Chemical Briefs

**ALUMINUM BOOM:** World production of primary aluminum in 1960 approximated 5 million short tons, or about 11 percent more than in 1959, Business & Defense Services Administration reports. This was triple the 1950 level of 1.65 million tons, BDSA points out.

**DOW SALES OFFICE:** Dow Chemical Company has opened a new sales office in Nairobi, Kenya, East Africa. Douglas W. Thorne, previously East Africa representative for Dow Agrochemicals, Ltd., a subsidiary, has been appointed sales supervisor of the office.

**VINYL MINE RESERVOIR:** Bagdad Copper Corporation is now using a polyvinyl plastic watertight lining in a surge pond at its Bagdad, Ariz., mine. It is said to be the largest such sheet ever farbricated into one piece for industrial use. It has reportedly brought the company a $24,000 cost savings.

**ZINC IN STEEL:** Shipments of galvanized sheet steel to the auto industry reached a new high of 218,960 tons in 1960, up from 158,280 tons in 1959, reports John L. Kimberley, executive vice-president of American Zinc Institute.


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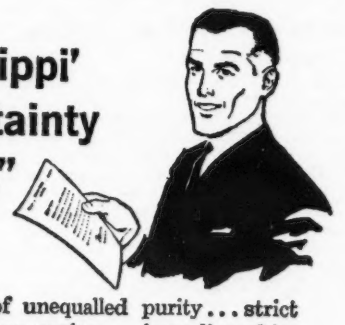

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## Bjorksten to AIC Helm; Fisher Is President-Elect

American Institute of Chemists has elected Dr. Johan Bjorksten as its new president. Dr. Bjorksten, president of Bjorksten Research Foundation, Madison, Wis., was chosen at the group's thirty-eighth annual business meeting in Washington, D.C., last week. He succeeds Dr. Milton Harris, vice-president of Gillette Company, Boston, Mass.

The following new officers were elected by mail ballot of the membership:

President-elect (to succeed the president in May 1962) is Dr. C. Harold Fisher, US Department of Agriculture.

Councilors-at-large (to serve for three years): Dr. Henry B. Hass, consultant, Summit, N.J.; Dr. Lloyd H. Reyerson, University of Minnesota, Minneapolis; and Martin B. Williams, Army Rocketry & Guided Missile Agency, Redstone Arsenal, Ala.

## Organic Chemical Output Set By Biochemical Company

California Corporation for Biochemical Research, Los Angeles, will further expand and diversify its operations by entering the fine organic chemical field. The company, a producer of rare biochemicals, has just completed financing arrangements totaling $1 million.

The lenders are Midwest Technical Development Corporation, Minneapolis, Minn., which announced the investment last week, and Florida Capital Corporation, of Florida.

An investment of 6½ percent subordinated convertible debentures was arranged by Technical Management Services Corporation, a subsidiary of Midwest Technical.

California Corporation's sales in 1960 were reported at $909,644,000, with earnings before taxes of $96,987.00..

## *Chemical Look at Africa*

*—Continued from page 7*

which I do not believe will encourage more investment."

He added: "In a sense, however, our greatest insurance against expropriation lies in the good relations we enjoy with the Guinean authorities and our mutuality of interest."

He stated further: "But in the worldwide investment climate of today, aggravated as it has been by increased civil unrest in many places and notably by the example of Cuba and by the many new forms of international thievery, it is virtually certain that comparable new investments in developing countries will not be forthcoming unless the guarantee program is radically changed to insure business against all but business risks."

## Gulf Is Pyrethrum Processor, Too

In the "depth" report on pyrethrum (OPD, 4/24/61), Gulf Oil Corporation was omitted as a processor of pyrethrum flowers and a refiner of pyrethrum. Gulf does not produce concentrate for resale to other manufacturers. Rather, it uses the extract captively in the production of three Gulf brand-name insecticides for consumer use.


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## Escambia To Become Seller Of Own Nitrogen Products

Escambia Chemical Corporation will take over sales of its nitrogen products manufactured at Pace, Fla., effective July 1.

Ashcraft Wilkinson Company, exclusive sales agents for Escambia in both the fertilizer and industrial markets since 1955, will continue to represent Escambia during the current season, "and will render any assistance possible to Escambia and customers of Escambia's nitrogen products during the transition period," a joint announcement says.

Escambia's nitrogen sales and technical service organization will be headquartered in Atlanta, with sales representatives located in the southeast markets served by the Pace plant.

Ashcraft-Wilkinson will continue to serve the fertilizer industry as a supplier of a wide range of fertilizer materials, it was pointed out.

## Vulcan Elevates Lynch

David W. Lynch has been named vice-president of sales for Vulcan-Associated Container Corporation with headquarters in Birmingham, Ala. Mr. Lynch has recently been serving the company as general sales manager. Previously he had participated in sales of basic insecticides and chemicals for twenty years.

## *FDA Enforcement Backed*

*—Continued from page 4*

commerce," the appeals court pointed out last week.

"In enacting the 1948 amendment," the court said, "congress sought to fill the gap in the regulatory scheme pointed out in US v Phelps Dodge Mercantile Company by subjecting to condemnation food which had been adulterated or misbranded after coming to rest within a state but before being sold to a consumer.

"The interest of the federal government in insuring that such food meets minimum standards of purity and is not misbranded arises out of its supervisory function over interstate commerce.

"The house and senate reports both referred expressly to the congressional desire to protect the integrity of interstate products so as not to depress the demand for goods that must travel across state lines.

"This interest surely extends to products such as olive oil, which a New York consumer would probably recognize as out-of-state or foreign in origin.

**All Are Interstate Components**

"Moreover, in this case all the components of the oil blend had been transported in interstate commerce, and the completed mixture was being held for sale as 'oil'—the very same type of food which had traveled across the state line.

"This is not a case in which oil which was transported interstate was used as one of many ingredients in a finished product which in no way resembled the food which had crossed state lines.

"Oil may come in many varieties, but to the unsophisticated consumer one oil blend is much like another. We would be undermining the remedial legislative purpose of consumer protection were we to deny the power to seize misbranded articles on the ground that such foods as corn oil, peanut oil, soybean oil and olive oil when mixed constitute a 'different product' from a blend of less than all or from a pure measure of any one of them.

"Congress' policy may not extend to assuring a consumer that all representations regarding any device or food made up of components transported in interstate commerce are true, but it at least goes so far as to assure him that the interstate elements themselves are not misrepresented."

## *Firestone Vinyl Resins*

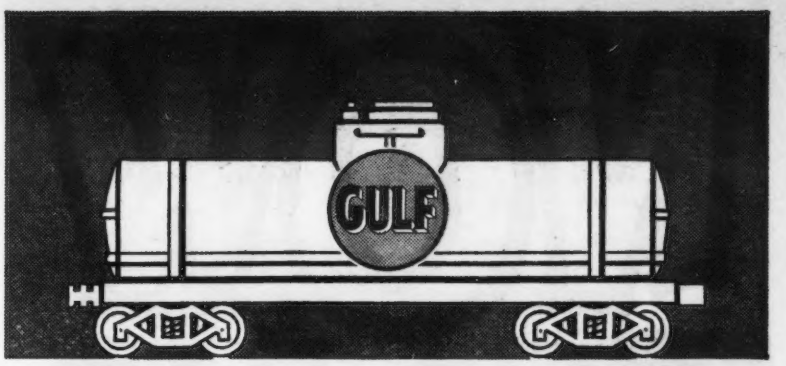
*—Continued from page 3*

ing, installation of twelve additional reactors, plus construction of a new sub station, pump house and cooling tower.

"Exon" vinyl resins move into plastic materials, upholstery, packaging, floor and wall coverings, paint latices, industrial pipe and related products. They also are the starting point for Firestone's "Velon" plastics.

"With these new facilities the plant will be in a better position, allowing increased production of resins, and particularly latices for the paint industry," say L. J. Campbell, president. Mr. Campbell also cites growing demand from the plastics industry.

Catalytic Construction Company served as engineer and contractor for the project.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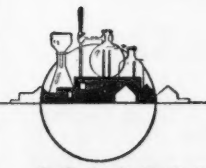

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## Obituaries

### Walter H. Breuer

Walter H. Breuer, vice president of European operations for Reichhold Chemicals, Inc., White Plains, N.Y., died April 26 in an automobile accident in Germany. He was sixty-one years old.

Mr. Breuer, who joined Reichhold in 1927, was also president of Reichhold-Beckacite, SA (France), and chairman of the board and joint managing director of Reichhold Chemicals, Ltd. (England).

### Robert Campbell

Robert Campbell, former vice-president of Celanese Corporation of America, died May 7 in Orange, N. J. He was seventy-eight years old.

Mr. Campbell, who retired as an investment banker in 1945, figured prominently in the celluloid industry from 1903 until 1931. In 1928 he became president of Celluloid Company of America, serving in that post until the company became a part of Celanese in 1928. He served as vice-president of Celanese for three years.

**James F. Bell,** founder of General Mills, died May 7 in Minneapolis, Minn. He was eighty-one years old.

**William F. Kammerer,** Chicago branch manager for George Lueders & Co., died May 2. Mr. Kammerer joined the Lueders organization in 1923 and was named Chicago branch manager in 1930.

**Charles Pomeroy,** production manager for Reilly Tar & Chemical Company at Granite City, Mo., died May 7 in Granite City. He was fifty-nine years old.

**Walter Schaefer,** former assistant controller of Standard Oil Company (New Jersey), died May 7 in Brooklyn, N. Y.

**Frank A. Whittall,** chairman of the board and president of Continental Can Company of Canada, Ltd., died May 4 in Montreal. He was sixty-one years old.

**Charles Benson Wigton,** chairman of the board of Wigton-Abbott Corporation, engineering and construction firm which he co-founded in 1924, died May 7 in Plainfield, N. J. He was seventy-five years old.


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# BHC Market: Coin and Courage Regarded as the Keys to Survival

Coin and courage will decide which of the five remaining producers of benzene hexachloride will survive the squeeze exerted on the BHC market by declining demand, rising costs and reduced prices. These factors, plus competition from other insecticides, are reducing market survival for producers to a matter of time. In the words of one BHC producer: There is room for only one producer in the market and the doubtful distinction of being the only BHC producer in the US will go to the one with the greatest determination and tenacity. Why all the bother? Investment in equipment that can not be easily converted to other uses.

**Price Trends**

**Advanced**
None

**Reduced**
None

**Comparative Price Indexes**
(100=1949 average)

| Last week | Prev. week | Last month | May 13, 1960 |
|---|---|---|---|
| 111.70 | 111.70 | 111.65 | 109.97 |

*For Current Prices see page 10*

Despite the gloom enshrouding the BHC market, a few bright spots are apparent. Exports in 1960, for example, continued on an upward trend. Brazil lead all other BHC importing countries, taking more than half of BHC outshipments last year.

Brazil's anti-malaria program required more than 2,200,000 pounds of gamma isomer in 1960, compared to 1,056,000 pounds in the previous year. BHC exports generally have advanced in the past three years, largely on the basis of increased shipments to Brazil.

**Market Optimism a Scarce Commodity**

On the domestic front, the market continues to offer very little to be optimistic about. The trend is toward high gamma isomer, but the overall BHC trend is down. Some feel that there is an outside chance that lindane might turn the tide in the BHC market, but this may end up to be nothing more than a delaying action when measured against the growth curve for the entire pesticide industry.

Department of Agriculture estimates show that pesticide use will increase 20 percent in the mid-1960's, with even greater boosts predicted in the next few years.

A program to re-educate farmers as to the advantages of BHC never got past the planning stage, trade sources report. And with the trend toward larger farms in the hands of fewer farmers, the job of reversing the switch to other insecticides may become more difficult. The fact is farmers today tend to be more scientific in their approach, ready to examine their traditional purchasing methods.

While the major use for BHC is still in fighting the cotton crop's nemesis, the boll weevil, competition from phosphate insecticides is eroding BHC's traditional hold on this market.

In recent months, Food & Drug Administration, in conjunction with USDA, has been studying the effect of BHC residues on such related cottonseed derivatives as salad oil and margarine.

Anxious less another cranberry-type scare develop, BHC producers stress their belief that the government study will at best amount to a minor labeling change or a change in spray application regulations.

## Animal and Plant Foods

Field reports on the feed grain program indicate that USDA has underestimated the amount of land that will be taken out of corn production by more than 10 percent, the National Plant Food Institute reports.

Early estimates pointed to retirement of about 12½ milloin acres of corn—which would have reduced 1961 planting intentions from about 83 million acres to nearly 70 million acres actually planted. This was based on forecasts that 60 percent of the farmers would enter the program.

But the reports indicate, NPFI finds, that signups will run somewhat higher than 70 percent. Significantly, farmers going into the program are retiring the maximum 40 percent of base acreage allowable under the program.

As of a few weeks ago, farmers have signed 7.2 million acres of corn land into retirement, with the Institute reporting that the bulk is yet to come. They also find that it is almost a certainty that the total corn land retired under the program will come between 14-15 million acres. This would put total 1961 plantings at about 68-69 million acres or the smallest corn acreage in this country on record.

National Plant Food Institute feels that it seems highly probable that this will be the level of corn acreage planted for the next few years. USDA is expected to recommend continuation of this smaller acreage to congress.

**Ammonium Sulfate**—Demand continues to edge available supplies, sources say. Listings are at their seasonal levels, unchanged.

**Animal Proteins**—The market for animal proteins continued to be firm in many areas of the country following the gains in soybean meal. Fishmeal listings continue to hold at around $110 per ton as reported last week, but some sellers are reported asking $115. The latter price is felt to indicate future trends in the market.

Two factors in the fishmeal market are seen as providing the base for its recent strength. One factor is found in the rising prices for soybean meal which is turning feed formulators to fishmeal as a substitute. Also adding to fishmeal's firm position is the declining stocks of meal. Bad weather in the Gulf has cut down on fishing operations thus reducing meal stocks.

On the basis of recent reports, the production of fishmeal in the US during the first two months of the year dropped 13 percent, when compared to the same months of 1960, according to the US Department of Interior.

February production of just over 2,000 tons was down one percent. The 1,300 tons of tuna and mackerel meal, which accounted for 63 percent of the month's total meal production, was 136 tons below the same period last year, Interior concludes.

**Nitrogen Solutions**—Market moving nicely as demand for solutions keeps producers operating at full output. A wet spring however, has hurt shipments in some areas.

**Potash**—Another producer has announced potassium muriate prices for the coming fertilizer season. As with the earlier announcements, muriate listings will go up 2c. per unit $K_2O$ for standard muriate while coarse or granular muriate will be increased 4c. per unit. Potash shipped in bags will be boosted $2.40 per ton. Potassium sulfate will also go up 3c. per unit $K_2O$.

## Agricultural Chemical Briefs

**EMERGENCY BEETLE CONTROLS ENDED:** The recent threat of an airborne invasion of the US by a destructive beetle from Europe has been reduced sufficiently to end emergency control measures, Department of Agriculture reports. Spraying of all airplanes from Paris, France, to major airports in this country has been discontinued, but airplanes are being carefully searched and will be sprayed if beetles are found, USDA concludes.

**"SEVIN" CLEARANCE LIST GROWS:** Use of "Sevin" 50 percent wettable powder in sprays on filberts, a type of hazelnut, has been cleared by USDA, according to Union Carbide Chemicals Company, New York. The advantage of "Sevin" is reported to be in its versatility. Previously several insecticides had been required to control filbert pests. With "Sevin," Carbide reports that insect control problems are reduced to one spray application.

we're doing it in order to make it easier for you to order. A special committee of the National Plant Food Institute has suggested that the variety of names for the same potash product has resulted in confusion, and Big Chief Kay-Two-Oh is happy to go along with the rest of the industry in standardizing product names. As of the new season, July 1, the following names will apply to PCA products:

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# *Vinyl Acetate Producers See Demand Up 50 Percent in 1965 Over '60*

## OPD 'Depth' Report on Vinyl Acetate

—*Continued from page 3*

build a plant to fill both Borden Company's and Reichhold's needs.

Topping off this potpourri of rumors and counter-rumors, it is known in the trade that Air Reduction Chemical & Carbide Company is scrutinizing very carefully the possibility of adding a 45-million-pound unit to its Calvert City, Ky., complex "some time in the near future."

Right now industry capacity, both Canadian and domestic, is reckoned at 391 million pounds a year. This may seem quite high when compared with estimated actual outturn of 285 million pounds in 1960.

**Vinyl Acetate's Growth Rate**

However, the fact is that vinyl acetate monomer demand has been growing by at least 14 percent a year since 1955. Some producers report increases in their business of as much as 18 percent a year over the same period.

Hence projected demand of 425 million pounds in 1965 might be called conservative, since the annual increase is only slightly more than 8 percent a year, from now till then.

By 1963, if the present pattern of expansion announcements holds unchanged, it's probable that about 545 million pounds of VAc capacity will be in place, against demand of some 325 million pounds.

What's most likely to happen, some observers think, is a doubling-up of some projects both planned and rumored, thus bringing down the 1963 capacity estimate.

Nonetheless, at current and projected growth rates, it's not difficult to justify VAc expansions, despite a possible gap of almost 220 million pounds between output and capacity in 1963. Two years from that point, projected output of 425 million pounds will be reaching 80 percent of capacity.

During the last few years, VAc business outside the US and Canada hasn't been idle, either, and American producers might have to pay more attention to it than they have in the past.

**Overseas VAc Capacity**

Right now, overseas VAc capacity (outside the Soviet Union and Red China) is estimated at 489 million pounds. West Germany, with giants Farbwerke Hoechst AG and Wacker GmbH, is rated at 200 million pounds a year.

Japan has five producers with a capacity totaling about 150 million pounds annually. In the United Kingdom, three makers have a combined capacity of more than 30 million pounds; Italy is believed able to produce more than 20 million pounds per annum.

In addition, other countries have VAc plants capable of turning out sizable quantities. Rhone-Poulenc's capacity in France is rated at about 30 million pounds. Chemische Werke Buna, in Halle, East Germany, can make more than 12 million pounds annually.

Right now, American producers are finding it difficult to compete with overseas makers on international markets. The reason is that US industry must ship in domestic bottoms.

One source told OPD that it is more expensive to ship VAc from Gulf ports to Brazil, for instance, than from Tokyo to Brazil. Under these conditions, it's emphasized, it's not likely that US producers will get much of a share of overseas markets.

It's believed that the only future for US exports lies in Mexico. Here, monomer can be sold at the same price that it is sold in the US (15.6 cents a pound f.o.b. Laredo, Tex.).

Reportedly there are eight producers of polyvinyl acetate in Mexico at present, with two more on the verge of entering the market. The total demand, it is estimated, is somewhat less than 4 million pounds.

US producers firmly believe that on plant cost, economics of production and raw material costs they have their overseas competition beaten. But owing to high freight rates in domestic ships, they'll be undercut by foreign produers in other lands.

Hoechst, the pioneer producer of vinyl acetate, has set up, or is establishing seven producing affiliates in seven different countries to make polyvinyl acetate. Capacity figures for the PVAc plants are scarce, but it's estimated that they could chew up as much as 30 million pounds annually of monomer (presumably that of Hoechst).

Other countries in Europe, Asia, Africa and Latin America have PVAc facilities, but it looks at present as if VAc business will be picked off by Germany and Japan—unless something is done to lift shipping restrictions on US producers.

Back of all this activity in VAc are a number of factors. Perhaps the key lies with polyvinyl acetate coatings and adhesives. Polyvinyl acetate coatings caught on in Germany in the thirties, and were used extensively in Germany and the United Kingdom during World War II and after.

**The Plethora of SBR Materials**

In the United States, development of PVAc latex dispersions was hampered by a wealth of supply of styrene and butadiene during and after the war, since latex technology was naturally focused on what was most plentiful at the time.

Feeling is that styrene-butadiene has reached its maturity as a paint latex, despite some terpolymer work being done here and there in the industry.

PVAc paints—popular for their ease of application, moderate cost and good wearability—have caught on rapidly over the world. PVAc coating is a coating of convenience.

This element—convenience—is particularly important in the lesser-developed areas of the world where speed of building construction, for instance, is more emphasized than the ultimate in craftsmanship. A lot of raw masonry is used, on which PVAc coatings are unexcelled.

Expansion of use of PVAc coatings has been no less phenomenal in the US. Bureau of Census says that in 1954, 3.1 million gallons of water-thinned paints were sold ("vinyl and others"). In 1958, 12.1 million gallons were sold.

Sales of vinyl acetate paints in 1960 are reckoned at 26 million gallons at least. Total PVAc used in coatings, dry basis, rose from 49 million pounds in 1959 to 51 million pounds in 1960, and could hit 95 million pounds in 1965.

Other PVAc uses here are expected to show sharp gains in the next five years. Broadening applications in the adhesives field (exclusive of non-wovens) promise to hike PVAc consumption from 50 million pounds in 1959 to 76 million pounds five years hence.

Textiles and non-wovens including personal sanitary products) are expected to show moderate gains during the next few years, owing to some extent to an encroachment by polyvinyl alcohol.

All other uses, including inks, chewing gum and the like, are expected to advance rather rapidly, due to the great ability of PVAc to be compatible with a number of other materials—i.e. acrylics.

One problem in dealing with the polyvinyl acetate market is judgment of capacity. Among some of the large PVAc producers, Borden Chemical, for instance, is believed able to produce 110 million pounds a year.

The capacity of E. I. duPont de Nemours & Co. is believed to be in excess of 70 million pounds a year; Shawinigan Chemicals, Ltd., 45-50 million pounds; Dewey & Almy, 20 million; National Starch, 20 million, and so on.

But most observers agree that a total estimate of PVAc capacity is almost meaningless. Suffice it to say, they point out, that production of PVAc at any given time is probably well under half of capacity.

**The Large Number of Makers**

Reason is that there are anywhere from forty-seven to fifty producers of polyvinyl acetate today (there were thirty-four in 1959, according to the Tariff Commission), depending on industry estimate.

A number of paint companies are in the business because of their ability to convert alkyd resin kettles to VAc polymerization use with some modifications.

How much further this trend will go is hard to say. Sellers of VAc are trying to convince prospective producers of PVAc to put in equipment specifically designed for the purpose.

Though there appears to be a remarkable excess of capacity, however, there has been no indication that potential new producers are thinking twice about entering the market.

For paint companies in particular this is true, and with the rising popularity of PVAc latex systems, it's not inconceivable to envision as many PVAc producers as alkyd resin producers.

If polyvinyl acetate (emulsions and beads) is the favorite candidate to lead VAc consumption to higher levels, polyvinyl alcohol is the dark horse.

Polyvinyl alcohol producers have shown unbounded enthusiasm for their product of late, despite seeming excess capacity. Even Air Reduction, which has abandoned PVA fiber plans, is optimistic.

The industry is banking on growth of water-soluble film consumption for use in laundry products. Use in 1960 for water-soluble ethoxylated PVA film reached some 4 million pounds, and could go to nearly 20 million pounds in 1965.

Other PVA uses are also expected to climb: adhesives, to 15 million pounds; textile sizing and finishing, 5 million pounds; paper sizing, 4 million pounds, and other uses, 6 million pounds.

Any one of the above end-uses for PVA could far outstrip the predicted totals, it's believed. And though fibers have been given up for the present, possible fiber requirements developing by 1965 could account for up to 10 million pounds.

In all, it's expected that at least 42 million pounds of polyvinyl alcohol will be used in 1965. Since it takes about twice the amount of VAc to make that much, it means a consumption of 84 million pounds of VAc.

Polyvinyl butyral is third in volume of VAc consumption following PVAc and PVA. The future of this polymer is not easy to figure. This is because its use as a laminate in safety glass makes it entirely dependent on the whims of the automobile industry.

PVB took a body-blow last year when General Motors Corporation switched from laminated side and back window glass to tempered glass.

**PVB's Safety Glass Market**

Fortunately for PVB, laminated windshield glass is required by law. Hence, legally, at least, PVB is assured of a continuing outlet. But General Motors' decision last year was not the only reason PVB took a lambasting. Other factors include:

- More compact cars hit the market, with correspondingly less glass.
- Design trends appeared to be toward less glass per car.
- Automobile output was down generally.

What's expected in the future? Nobody anticipates a rapid growth, judging from present experience. Definitely, it's concluded, butyral will continue to be used in windshields.

Further, if auto business improves and if safety organizations put up enough clamor, car producers might swing back to greater use of laminated safety glass.

However, hopes for such a reverse trend

—*Continued on page 45*

### VINYL ACETATE MONOMER'S CAPACITY

#### There's Plenty Now, and Plenty for the Future

| | | Annual Capacity | |
|---|---|---|---|
| **US:** | **Location** | **1/1/61** | **1/1/63** |
| Air Reduction | Calvert City, Ky. | 90 million lbs. | 90 million lbs. |
| Celanese | Pampa, Tex. | 50 million lbs. | 50 million lbs. |
| DuPont | Niagara Falls, N. Y. | 75 million lbs. | 75 million lbs. |
| Monochem | Geismar, La. | — | 50 million lbs. |
| Pacific Carbide | Portland, Ore. | 6 million lbs. | 10 million lbs. |
| Reichhold | ? | — | 50 million lbs. |
| Tenneco | Houston, Tex. | — | 50 million lbs. |
| Union Carbide | Texas City, Tex. | 110 million lbs. | 110 million lbs. |
| **Canada:** | | | |
| Shawinigan | Shawinigan Falls, Que. | 60 million lbs. | 60 million lbs. |
| Total | | 391 million lbs. | 545 million lbs. |

*VAc: The Overseas Picture*

| | |
|---|---|
| Czechoslovakia | 11 million lbs./yr. |
| France | 30 million lbs./yr. |
| Germany, East | 12 million lbs./yr. |
| Germany, West | 200 million lbs./yr. |
| Italy | 23 million lbs./yr. |
| Japan | 150 million lbs./yr. |
| Netherlands | 5 million lbs./yr. |
| Norway | 1 million lbs./yr. |
| Sweden | 3 million lbs./yr. |
| Switzerland | 20 million lbs./yr. |
| United Kingdom | 33 million lbs./yr. |
| Yugoslavia | 1 million lbs./yr. |
| Total | 489 million lbs./yr. |

*PVA Capacity**

| | |
|---|---|
| DuPont | 25 |
| Air Reduction | 22 |
| Shawinigan | 10 |
| Borden | 8 |
| American Anilme | 1 |
| Total | 66 |

* Millions of pounds annually.

*PVB Potential**

| | |
|---|---|
| DuPont | 15 |
| Shawinigan | 30 |
| Carbide | 5 |
| Total | 50 |

* Millions of pounds annually.

# Aliphatic Organics

Oxo alcohols and derivative plasticizers went under the price ax last week with the cuts as great as 4 cents a pound. Reason for the actions, which were not explained officially, is thought to be the spate of expansion plants that could bring oxo alcohol capacity to an estimated 550 million pounds by 1962. Real spur, perhaps, was the announcement by a major consumer of the chemicals in the manufacture of plasticizers that it was going to take the bulk of the 60-million-pound annual output of a new oxo alcohol plant slated to be on stream in "well under" two years.

That the lower prices will discourage this or other ventures remains, of course, a speculative matter. That it's a worthwhile gamble—if such it is—is quite apparent, however, because several big chemical firms are rumored as potential entrants in the market.

Price announcements started coming in on Wednesday (May 10) when the word got out that a leading producer was posting lower schedules for its oxo alcohol line the following day (May 11). Competitors—including a firm which is dedicating its new oxo facility tomorrow (May 16), moved immediately, both producers of 2-ethylhexyl alcohol dropping prices on this isooctanol competitor concurrently.

Under today's schedules, as a result, isooctanol and 2-ethylhexanol are both quoted at 18 cents a pound in tankcars whereas the former had been ¼ cent cheaper.

New tankcar prices on the other chemicals: decyl alcohol, 17 cents a pound, off 3 cents; hexyl, 17 cents a pound, off 2 cents; and tridecyl, 20 cents a pound, off 4 cents.

Also reduced last week were hexanetriol and corn syrup. The former, which is available in commercial quantities, for the first time, is now quoted at 45½ cents a pound in drum carloads and 47 cents a pound in lesser quantities. A tankcar price of 43 cents a pound is also included in the new schedule.

The 35 cents a cwt. reduction in corn syrup, posted by a major producer on May 13, makes permanent a schedule that has been in effect—due to a special allowance—for three months.

Except for a 1 cent drop in triacetin prices, the glycerine reduction (2¼ cents a pound on May 1) has precipitated no further declines. Pentaerythritol is a potential candidate for the price block but as the weeks go by, a revision seems more and more unlikely. Restraining PE producers, according to several trade observers, is the fear of a smaller per unit profit without a compensating upturn in sales volume.

Prices for domestic crude glycerine are lower, of course, but a downtrend was already under way when the cut in refined was made, several reliable trade sources say. Seen as representative of the current market are these quotes: soaplye, 12½ to 12¾ cents a pound; saponification, 13½ to 14 cent a pound.

**Corn Syrup**—A major producer reduced corn syrup prices 35c. per cwt. on May 13. Resulting schedule, however, is equivalent to actual trading levels during the past three months while a special allowance was in effect.

Tankcar price is now officially $5.95 per cwt., the carload price for tightened non-returnable drums, $6.88 per cwt.

**Ethyl Alcohol**—Imports of ethyl alcohol, which exceeded 4 million gallons in February, dropped to 550,000 gallons in March. The single shipment—from Brazil—was valued at $126,500 and dutied at $41,250. Port of entry: Philadelphia.

Domestic market for ethanol is active, prices firm. Most notable development is USDA's proposed sale of surplus corn for use in the manufacture of chemicals. The offering seemingly has stirred up little opposition from synthetic alcohol makers, but a traveling politician has spoken of the sale unfavorably—if we interpret his speech to a farm group correctly.

**Glycerine**—Crude glycerine prices are lower at 13½c. to 14c. a pound for saponification and 12¼c. to 12¾c. a pound for soaplye. Still lower quotes have been reported semi-officially, and the understandable discrepancy probably is due to random, limited buying, which has made it difficult to arrive at really representative listings.

The downtrend in crude prices, while spurred by the reduction in refined schedules, actually began weeks ago, according to several reliable trade sources contacted by OPD last week. Belief is, in fact, that buyers of late have been purchasing crude at less than posted prices. Related or not, crude stocks are considerably smaller than previously.

Depressed crude prices may have been one of many developments in the overall glycerine market that pressured the 2¼c. a pound cut announced by a leading producer of the synthetic product on May 1. It was undoubtedly, however, one of the more insignificant factors.

It's unlikely that glycerine producers will be able to recoup losses by posting an advance, at least in the immediate future. And should competitive chemicals, such as pentaerythritol, be reduced, prospects for a price increase will be still dimmer, it's said.

Stocks of glycerine are abnormally high but this reportedly cannot be equated with the loss of markets. Alkyd business, for example, is just plain slow because automobile production and housing activity have not risen dramatically this year, a trade source explains. Tobacco and cellophane consumption of glycerine is steady, on the other hand, and in these specific end-areas, normal growth is clearly indicated.

With greater capacity in Europe as a result of recently-completed facilities in the Netherlands and France, a supply-demand in-balance also characterizes markets there. This is naturally affecting US exports and imports of the chemical.

Currently, import activity is slow, and the lack of buying interest makes it difficult to call the quote. Of course, no one is going to pay more for foreign crude than the going price of domestic stuff as long as supplies of the latter are

### Price Trends

**Advanced**
None

**Reduced**
Decyl alcohol, 3c. per lb.
2-Ethylhexyl alcohol, 3¼c. per lb.
Iso-octyl alcohol, 3c. per lb.
Tridecyl alcohol, 4c. per lb.

**Comparative Price Indexes**
(100=1949 average)

| Last week | Prev. week | Last month | May 13, 1960 |
|---|---|---|---|
| 130.33 | 130.48 | 130.53 | 132.19 |

*For Current Prices See Page 10*

### Aliphatics Foreign Trade: March

Imports of selected industrial aliphatic organics for February and March 1961, as reported by the Bureau of Census, were as follows:

| | | March | February |
|---|---|---|---|
| Acetic acid (over 65 percent) | lbs. | 563,240 | 563,520 |
| Acetic anhydride | lbs. | 72,680 | 6,650 |
| Amyl, hexyl, propyl alcohol and fusel oil | lbs. | 0 | 44,093 |
| Carbon tetrachloride | lbs. | 479,660 | 207,280 |
| Chloroacetic acid and anhydride | lbs. | 833,043 | 624,807 |
| Ethyl alcohol | gals. | 550,000 | 4,234,302 |
| Formic acid and anhydride | lbs. | 226,779 | 174,635 |
| Furfural | lbs. | 3,571,942 | 1,785,585 |
| Glycerine, crude | lbs. | 3,814,406 | 982,097 |
| Refined | lbs. | 3,920 | 0 |
| Lactic acid (55 percent or more by weight) | lbs. | 15,065 | 15,065 |
| Perchloroethylene | lbs. | 2,180,734 | 2,173,674 |
| Tetrachloroethane | lbs. | 0 | 0 |
| Trichloroethylene | lbs. | 3,028,546 | 1,891,742 |
| Vinyl acetate, unpolymerized | lbs. | 4,042,230 | 5,329,699 |


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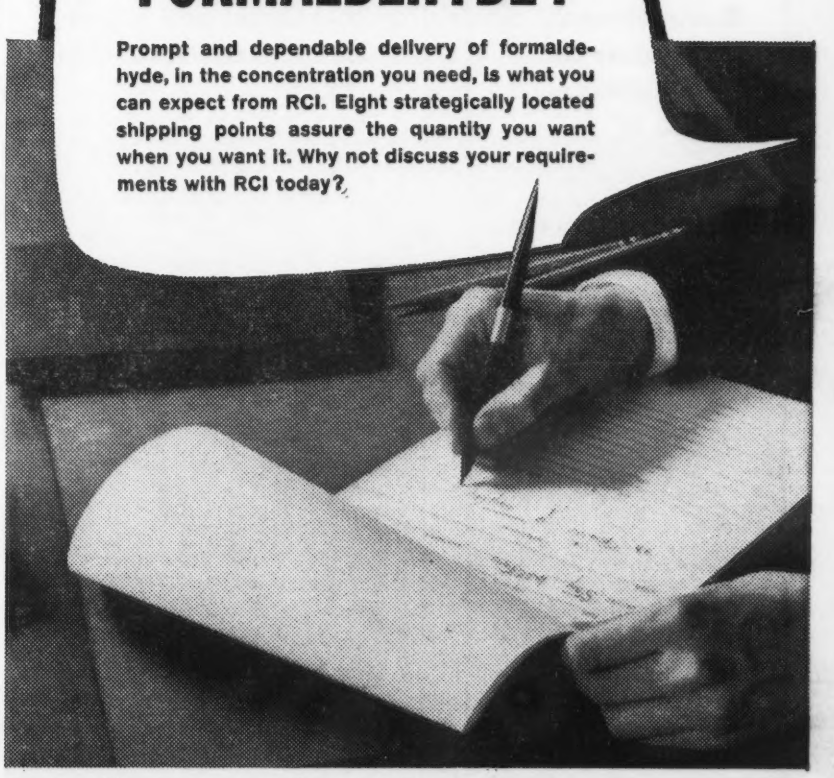

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# Aliphatic Organics

adequate to fill existing requirements.

March imports of crude glycerine were 3,814,406 pounds, valued at $506,561 and dutied at $15,257. Shippers were: Philippine Republic, Indonesia, Argentina, Australia, British East Africa.

The same month, imports of refined glycerine were 3,920 pounds, valued at $1,159 and dutied at $39.

**Hexanetriol**—Commercial quantities of 1,2,6-hexanetriol are now available. Prices reflect this. In the schedule posted by a producer last week, tankcar lots, not previously offered, are listed at 43c. a pound; carload of drums at 45½c. a pound and less than a carload, in drums, 47c. a pound, previously 75c. and 75½c. a pound, respectively.

**Pentaerythritol**—Spokesmen for major producers of pentaerythritol, contacted by OPD last week, indicated their respective managements were reexamining the PE schedule in light of the recent 2¼c. a pound reduction in glycerine, but by presstime no definitive word was received.

This hesitancy to commit themselves either to the old or to a new and lower schedule, some obeservers said, indicates that PE producers—like manufacturers of chemicals generally — are firmly entrapped in the cost-price squeeze.

Its difficult to meet the competition these days if you give a hang about your profit position. Each price cut, especially in a market as competitive as this, means a smaller profit per unit without the requisite compensating factors, larger volume and lower costs, it's said. And the latter are never assured, except, perhaps, where a market is not burdened with excess capacity and many producers, or when a development item is introduced commercially at greatly reduced prices.

Since two weeks have elapsed since the glycerine change, a cut in PE prices seems rather unlikely at the moment, some sources feel.

**Perchloroethylene**—March imports of perchloroethylene totaled 2,180,734 pounds, valued at $189,231 and dutied at $11,353. Shipping here were: France 1,155,684 pounds, valued at $89,512 and dutied at $5,370; Canada 969,050 pounds, valued at $95,896 and dutied at $5,754; and Japan 56,000 pounds, valued at $3,823 and dutied at $229.

**Sucrose**—With Cuba no longer a supplier and acreage controls lifted, beet sugar growers are expected to seed a minimum of 1.1 million acres. This would yield 2.6 million tons of raw sugar.

Coupled with domestic cane output of an estimated 700,000 tons, this will bring the total to 3.3 million tons, topping 1960 production by 6 percent and exceeding a decade ago by two-thirds.

**Triacetin**—Lower prices for triacetin have been posted by a major producer. Off 1c. a pound across the board, new listings are: tankcar or tank truck 35½c. a pound; car- or truckload, 38c. a pound, and less carload, 39½c. a pound.

The reduction, which was effective May 1, followed the 2¼c. drop in glycerine prices—an action initiated by a major producer of the synthetic product on April 28. Triacetin is a glycerine derivative.

**Trichloroethylene** — Imports of trichloroethylene, at 1,891,742 pounds in February, rose to 3,028,546 pounds in March. The entire quantity was valued at $201,509 and dutied at $15,115.

Sources of supply: United Kingdom 1,843,286 pounds, valued at $117,629 and dutied at $8,823; France 697,022 pounds, valued at $47,718 and dutied at $3,579; Italy 290,235 pounds, valued at $22,874 and dutied at $1,716; Netherlands 132,003 pounds, valued at $8,812 and dutied at $661; and Japan 66,000 pounds, valued at $4,476 and dutied at $336.

**Vinyl Acetate**—Imports of vinyl acetate monomer in March were 4,048,230 pounds, valued at $643,115 and dutied at $90,792. Of the total, 4,021,230 pounds were shipped in from Canada—the remainder coming from Japan.

Polymer imports the same month amounted to 184,030 pounds, valued at $81,507 and dutied at $7,392. Suppliers were: Japan 142,978 pounds, valued at $69,594 and dutied at $6,136; West Germany 34,694 pounds valued at $5,929 and dutied at $805; and Canada 6,358 pounds, valued at $5,984 and dutied at $451.

## *Chemical Barges*

*—Continued from page 4*

containers, each able to hold the maximum tonnage of the barge."

Barge cleaning prior to a return trip, the company points out, often runs into thousands of dollars. Further, return cargoes are often impossible with conventional barges because of the difficulty of finding compatible cargoes.

The barges have been specifically designed to carry petroleum, lubricating oils, chemicals, asphalt, molasses and edible oils such as tallow, lard and soybean oil. Inner compartments have been constructed with all structural members on the exterior, the company notes, thus providing "a completely smooth interior surface."

Four of the barges will have a capacity of 1,600 tons, and the other, 1,200 tons. Each has an inner container with three separate compartments and an outer container with six. This permits as many as nine different cargoes on one trip, three one way and six on return, National Marine points out.

"The services of these barges have not been fully contracted for," reports David A. Wright, president of National Marine.

They will be available to both large and small shippers, he points out, "and the greater savings made possible through reduction in cleaning costs and being able to carry cargoes on the return trip will be passed on to our customers."

The barges will be constructed at a total cost in excess of $1 million and are slated to start service in late June and early July.

## US Paint Buys Varnish Firm

US Paint Company, St. Louis, Mo., has acquired Martin Varnish Company, Chicago, and will operate it as a wholly-owned division. Martin Varnish will continue to function under its present personnel with corporate sales policies generated from St. Louis. The newly-acquired unit specializes in industrial finishes of all types and also produces some architectural finishes.

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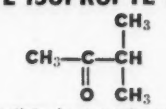

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# *Vinyl Acetate: Demand Up 50 Percent*

## OPD 'Depth' Report on Vinyl Acetate

—*Continued from page 42*

are dim, because historically, the auto industry likes to cut costs wherever possible. With a boost from as-yet-undeveloped uses in the adhesive area, butyral producers hope at best for a gain of 11 million pounds in 1965 over 1960 consumption, as far as use of VAc is concerned.

Copolymers with vinyl chloride and ethylene look like they'll take fourth rank in importance in VAc consumption in 1965, using about 41 million pounds.

But, here again, some sort of breakthrough seems likely. Most recent example of what might happen is "Elvax" vinyl resin, made by duPont.

This material, an ethylene-vinyl acetate copolymer (the trade wonders how similar it is to Allied Chemical Corporation's "A-C" polyethylene) is now being made commercially.

DuPont expects a multi-million-pound market for this material. It is suitable as a wax additive, wax-extended polymer, and as an adhesive base, having good hot-melt properties.

Other companies in the vinyl acetate business are said to be working hard on products similar to duPont's "Elvax," and there is every indication that, five years hence, these materials will be good outlets for VAc. This could bring total copolymer VAc consumption to 41 million pounds.

The traditional use of vinyl acetate in the copolymer field has been polymerization with vinyl chloride. While the amount of PVAc varies according to specification, some copolymers can contain as much as 15 percent. Phonograph records are an example of an application for PVAc-PVC copolymer.

Miscellaneous uses for VAc are expected to hold about the same. One of the early applications for it in this country was in the manufacture of PVAc for chewing gum. As other uses develop, old ones diminish. However, it may be that out of this category some new heavy-tonnage use could spring up.

It's clear that whatever happens in the vinyl acetate market, producers are prepared for it. Witness the large capacities, the eagerness of new producers to enter the field, and the attractiveness of both current end-uses and new ones on the horizon.

In fact, some makers of VAc are willing to bet there might be lower prices in the not-too-distant future, in order that current end-uses might be stimulated to further expansion and new applications spring up.

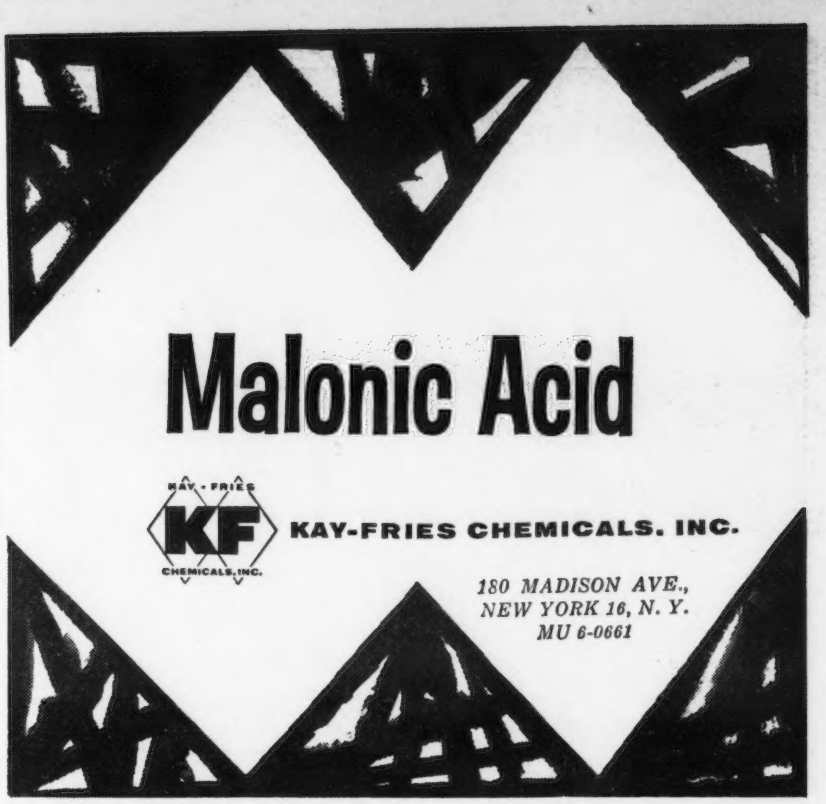
The industry is more than ready to meet these contingencies, and, from the talk that is going around now, would actually welcome them.

## POLYVINYL ACETATE DEMAND
### Coatings Markets to Play Major Role

| | 1965 | 1962 | 1960 |
|---|---|---|---|
| | (millions of pounds) | | |
| Coatings | 95 | 52 | 51 |
| Adhesives | 76 | 59 | 57 |
| Textiles | 26 | 20 | 19 |
| Non-wovens | 23 | 16 | 15 |
| All Other | 20 | 13 | 13 |
| Total | 240 | 160 | 155 |

***VAc Report Is Being Reprinted***

OPD's special "depth" report on vinyl acetate is being reprinted and will be available shortly. Copies may be obtained at 50 cents each (discounts on quantities of a hundred) from OIL PAINT AND DRUG REPORTER'S Reprint Department, 30 Church Street, New York 7.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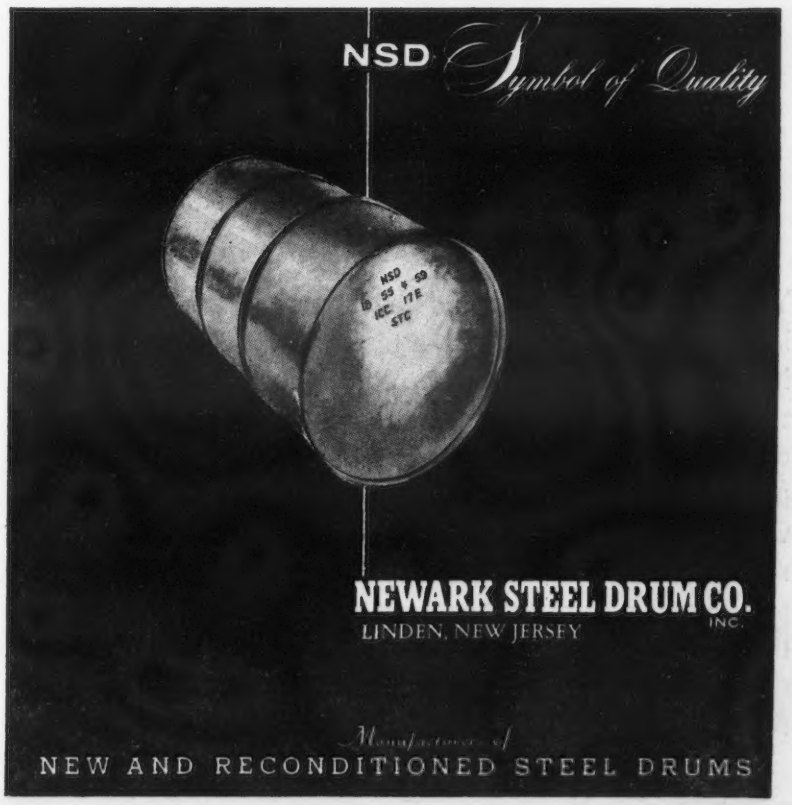


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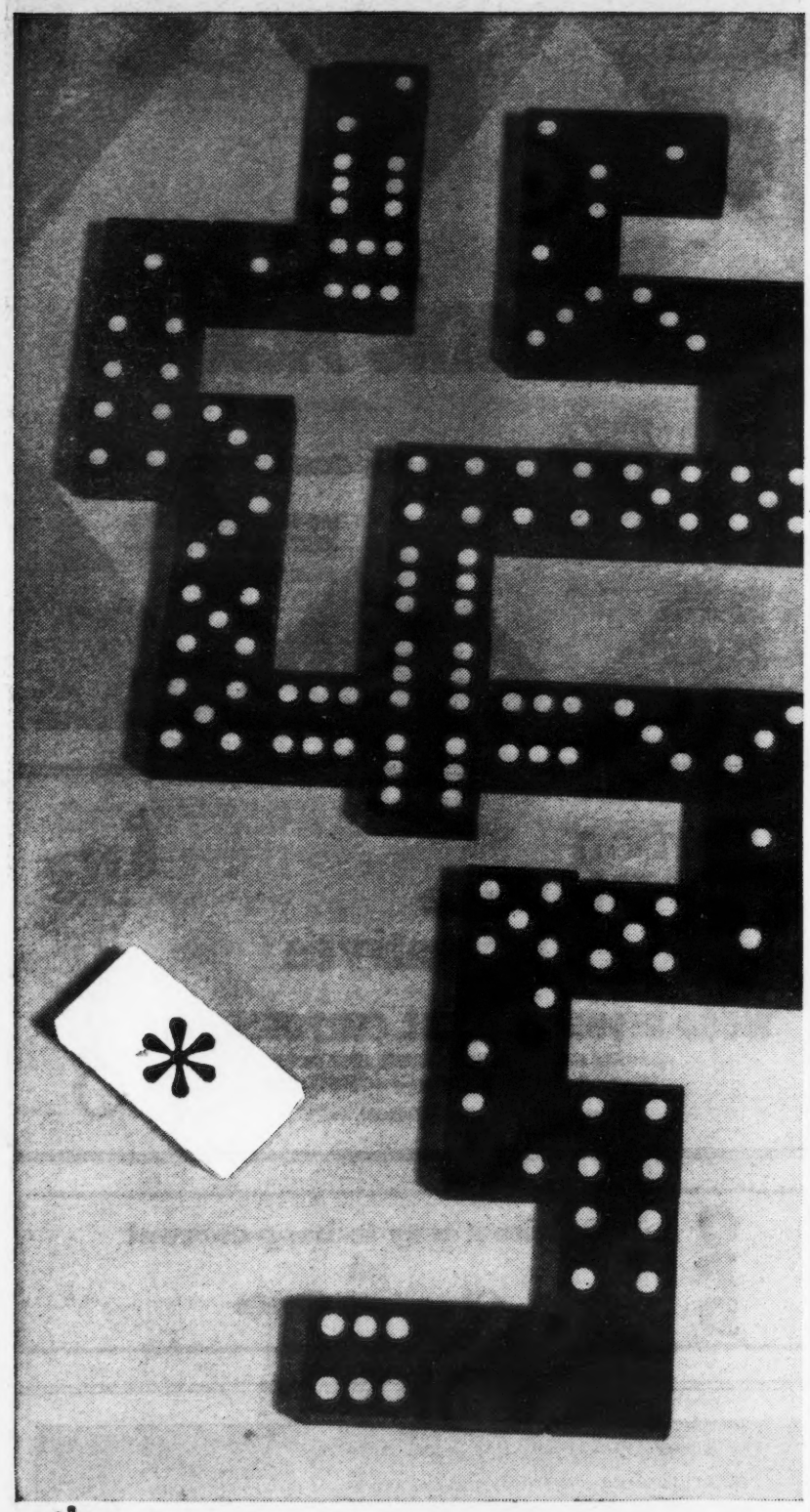

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KOPPERS COAL CHEMICALS

# Coal Chemicals

Naphthalene imports of nearly 12.5 million pounds in March set an all-time monthly record in the opinion of veteran observers. To even approach this volume one must go back in Bureau of Census records to the fourth quarter of 1958 when imports arrived in heavy sustained volume. October imports that year hit 12.3 million pounds. What's outstanding about the heavy March arrivals is the fact that naphthalene imports have been generally declining in last few years. In 1958 81.1 million pounds arrived at US ports while in 1959 some 59 million pounds were imported and last year only 40.4 million pounds arrived to supply naphthalene-starved industries. The surprise this year is that in the first quarter alone some 21.1 million pounds of naphthalene were imported, over half of last year's shipments.

Two questions arise. Where did all the imported naphthalene come from this year? Will heavy imports continue?

The answer to the first question is in part the answer to the second for some of the countries which accounted for heavy imports into the US this year will soon be captively consuming their naphthalene and not have heavy excess available for shipment to the US.

United Kingdom has exported 5.9 million pounds of naphthalene to the US thus far this year. Some long-term contracts have been negotiated with US consumers for continuance of imports but it's believed UK naphthalene volume will be substantially below current volume in years to come as British industries' requirements rise.

The Netherlands has exported 5 million pounds of naphthalene to the US this year, or 25 percent of all arrivals. Trade sources believe there will be no further heavy shipments from The Netherlands as two phthalic plants have recently gone on stream there and are expected to consume almost all that country's entire naphthalene output.

USSR accounted for 3.6 million pounds of naphthalene shipments to the US in the first quarter. Trade reports indicate at least three phthalic plants are rising in the Soviet Union, two of German design and one Italian. Although the Soviets continually get premium prices in the US for their naphthalene, it's expected they will divert their crude material to their own phthalic uses when the plants are ready.

Other countries contributing major shares of imports this year were Belgium—2.6 million pounds, Poland—2 million pounds and W. Germany—1.7 million pounds.

Another fact that will cut import volume is the declining price of material.

Until recently, imported naphthalene was quoted at 15 to 15.5 cents a pound when available. Price weakened in the first quarter as volume rose and is now quoted at 10 cents a pound.

Then, too, domestic US output is on the rise. Steel industry is reviving and petroleum naphthalene is commercially available from one plant with others on the way before the year is out. Latest report is that a plant planned for Toledo will be on stream late in the last quarter.

Thus with European demand for naphthalene on the rise and US domestic supply improving, it's doubtful that March's record import volume is any indication that the trend toward diminishing naphthalene imports is going to be reversed.

### Price Trends

**Advanced**
None

**Reduced**
None

**Comparative Price Indexes**
(100=1949 average)

| Last week | Prev. week | Last month | May 13, 1960 |
|---|---|---|---|
| 117.63 | 117.63* | 117.51 | 118.40 |

* Revised.

*For Current Prices see Page 10*

Production of steel in the week ended May 6 was 1,943,000 net tons, an increase of 4.6 percent over the previous week.

Based on assumed 1961 steel production capacity, rate of production for the week was 67.3 percent of capacity

Production for the first 18 weeks was 36.8 percent below the comparable period last year.

## Basic Products

**Benzene**—Easier supply is reported by major producers.

Increase in steel rate over the last two months is making its effect known as additional coke oven material is reaching the market.

Petroleum suppliers continue to pump high quantities of material into the market as well.

Benzene demand remains high despite first quarter declines in some benzene derivatives, notably styrene, phenol, monochlorbenzene and dodecylbenzene.

Benzene exports rose again in March. A total of 5,252,225 gallons valued at $1,965,122 left US ports as against 4.1 million gallons in February.

Average value per gallon of March shipments was 37.5c. although larger volume shipments tended to lower prices.

Destination, volume, value, Tariff Commission exit port designation and average value per gallon follows:

Italy—1,842,346 gallons valued at $653,809 left Galveston and Port Arthur areas. Average price per gallon—35.4c.

Mexico—956,590 gallons valued at $403,866 left from Laredo district. Average price per gallon—42.2c.

W. Germany—943,180 gallons valued at $320,681 left from Galveston. Average price per gallon—34c.

The Netherlands—614,928 gallons valued at $255,179 left from Port Arthur and Galveston. Average price per gallon—41.5c.

Canada—524,412 gallons valued at $204,741 left from Buffalo and Detroit. Average price per gallon—39.1c.

Brazil—359,739 gallons valued at $122,311 left from Galveston. Average price per gallon—33.9c.

Nominal shipments were also made to Greece and New Zealand.

Benzene imports in March climbed to 2,959,490 gallons. All material originated in USSR and was the first Soviet shipments recorded this year. Port of entry

### Aromatic Chemicals Foreign Trade: March

Following statistics are compiled from Census Bureau reports.

| | | *March 1961* | *March 1960* | *First Three Months 1961* | *First Three Months 1960* |
|---|---|---|---|---|---|
| **EXPORTS** | | | | | |
| Benzene | gals. | 5,252,225 | 823,910 | 11,176,160 | 3,585,724 |
| Coaltar, crude and refined | gals. | 9,004 | 42,065 | 41,240 | 102,782 |
| Creosote or dead oil | gals. | 14,499 | 5,718 | 27,414 | 7,308 |
| Cresols and cresylic acids | lbs. | 1,908,546 | 897,027 | 6,399,034 | 2,755,437 |
| Phenol | lbs. | 2,262,126 | 4,914,123 | 5,429,113 | 9,845,086 |
| Phthalic anhydride | lbs. | 365,840 | 1,229,162 | 684,560 | 2,420,645 |
| Styrene monomer | lbs. | 3,375,337 | 13,409,790 | 33,849,029 | 43,833,482 |
| Toluene | gals. | 2,691,199 | 5,227,487 | 10,841,102 | 15,280,937 |
| **IMPORTS** | | | | | |
| Benzene | gals. | 2,959,490 | 4,562,693 | 4,256,911 | 10,035,293 |
| Creosote and dead oil | gals. | 2,597,153 | 4,007,993 | 9,751,643 | 10,806,937 |
| Cresols and cresylic acid, ADF | gals. | 45,686 | 79,404 | 113,274 | 476,689 |
| Naphthalene, melting point less than 79° C. | lbs. | 12,443,547 | 2,344,063 | 21,151,508 | 11,155,027 |

## Coal Chemicals

was Galveston. Tariff Commission value was placed at $728,410, or 24.6c. a gallon.

**Naphthalene**—Producers report supply is edging upward to meet strong demand. Accelerating steel rate has helped somewhat though the main improvement in supply is expected next month.

Petroleum naphthalene supply is to be increased in the fourth quarter when a new installation goes on stream at Toledo.

Naphthalene imports in March boomed to 12,443,547 pounds valued at $1,579,793. February's arrivals totaled 3.5 million pounds.

Shipments originated in:

The Netherlands — 4,599,402 pounds valued at $677,007 arrived in New York. Average price per pound—14.7c.

United Kingdom — 2,741,793 pounds valued at $213,480 arrived in New York and Boston. Average price per pound—7.8c.

Belgium — 1,537,568 pounds valued at $177,224 arrived at New York. Average price per pound—11.5c.

W. Germany—1,421,976 pounds valued at $195,301 arrived New York and Philadelphia. Average price per pound—13.7c.

Poland — 1,170,654 pounds valued at $182,622 arrived in New York. Average price per pound—15.6c.

USSR—907,054 pounds valued at $130,578 arrived in New York—14.3c.

Canada—65,100 pounds valued at $3,581 arrived in the St. Lawrence Tariff Commission district. Average price per pound—5.5c.

**Phenol**—Exports climbed to 2,262,126 pounds valued at $281,218 after February shipments of 2.3 million pounds. Average price of March exports—12.4c.

Major shipments were made to:

The Netherlands — 1,541,850 pounds valued at $171,133 departed from San Francisco and Virginia districts. Average price per pound—11.1c.

Mexico—301,507 pounds valued at $49,085 departed from Laredo. Average price per pound—16.3c.

Argentina—219,960 pounds valued at $34,094 departed from New York. Average price per pound—15.5c.

### Coal Chemicals

Estimated output of coal chemicals recovered from cokeoven operations during the week ended May 6, were as follows:

| | | |
|---|---|---|
| Ammonia liquor | lbs. | 581,983 |
| Ammonium sulfate | lbs. | 24,772,730 |
| Benzene | gals. | 2,668,339 |
| Coaltar | gals. | 13,462,485 |
| Crude chemical oil | gals. | 527,078 |
| Solvent naphtha | gals. | 87,847 |
| Toluene | gals. | 592,964 |
| Xylene | gals. | 164,712 |

## Intermediates

**Acetanilide**—A major producer indicates sustained activity for this intermediate.

Volume sales are being made to pharmaceutical and dyestuff manufacturers.

Price is unchanged at 32½c. a pound for technical grade material, flaked, barrels or bags, carlot amounts, freight allowed. Less than carlot amounts are a cent a pound higher.

**Phthalic Anhydride**—Supply situation is termed spotty by major producers.

Some areas and consumers are receiving


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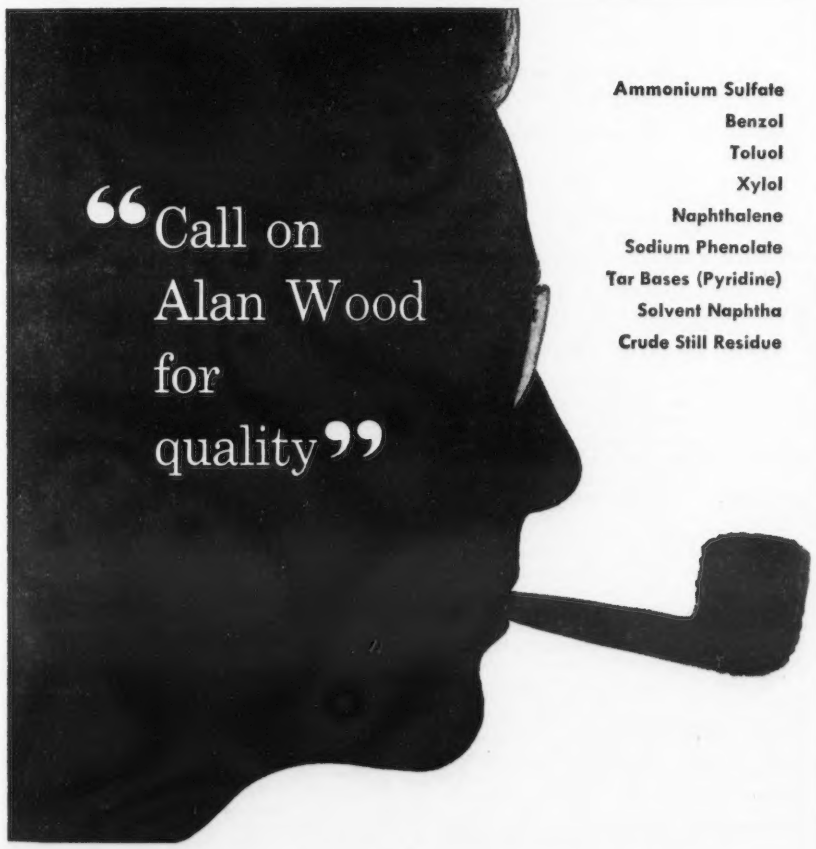


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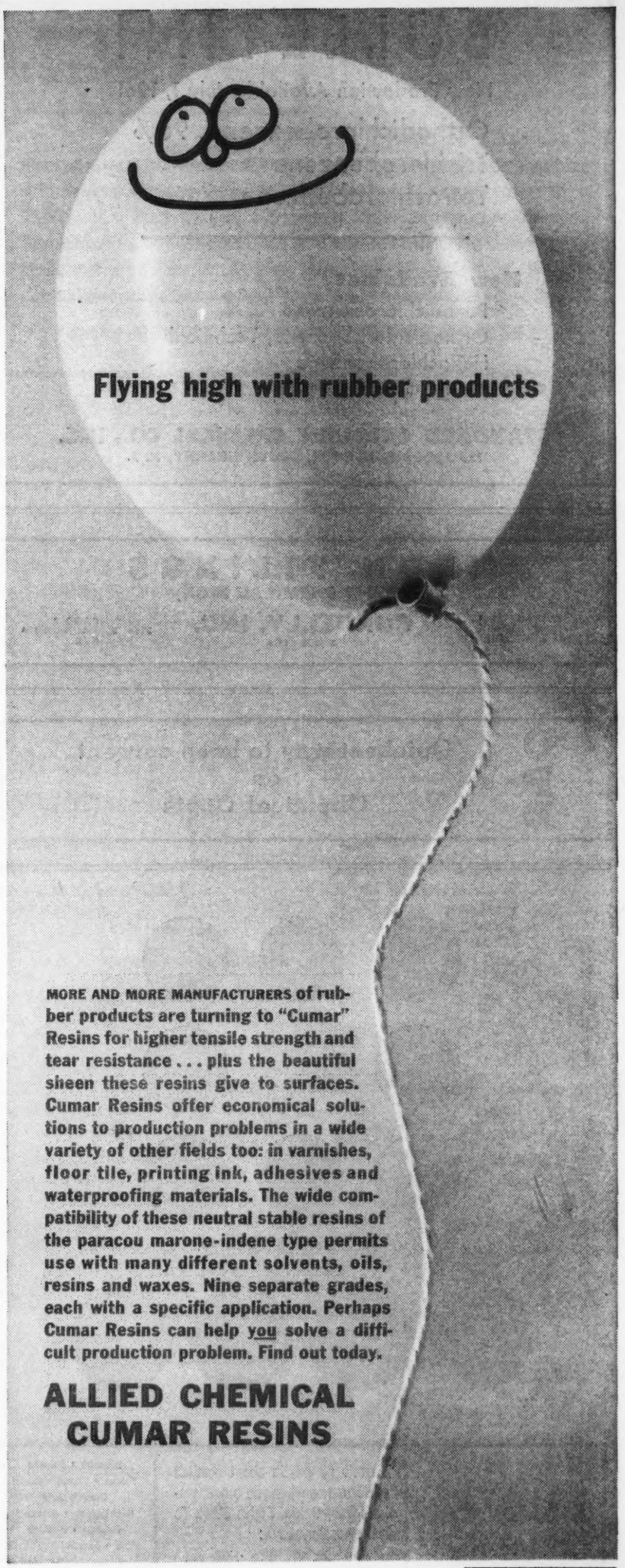


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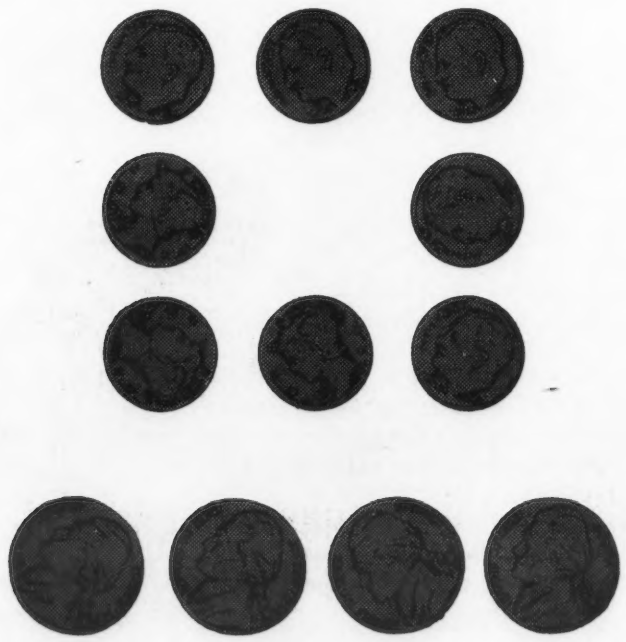

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## Coal Chemicals

adequate material for needs while others are encountering difficulties.

Supply situation is undergoing a change, producers comment, from a tight condition to one approaching adequate supply.

Fear of producers now is that after the heavy consuming months of May and June the supply situation may become loose.

There are already some rumbles from consumers concerning price but they are not strong as yet. Producers believe that in the Summer, when supply is expected to loosen, that consumer pressure will intensify.

In the current market plasticizers are taking heavy volume. Alkyd resins are reported slow.

Phthalic anhydride imports in March amounted to 1,052,929 pounds valued at $220,562, or an average price of 20.9c.

Major shipments were made to:

Italy—529,104 pounds valued at $105,821 arrived at New York and Boston. Average price per pound—20c.

W. Germany—341,779 pounds valued at $74,354 arrived at Boston and Cleveland. Average price per pound—21.7c.

Canada—160,000 pounds valued at $36,800 arrived at Detroit. Average price per pound—23c.

**Styrene Monomer**—Market report is mixed. Polystyrene end use is booming while polyesters and synthetic rubber remains slow.

One major styrene producer reveals that March was a company polystyrene record.

Synthetic rubber application of styrene is slow despite recent upturn in auto output. Synthetic rubber users are hinting broadly, however, that they expect an imminent upturn in demand.

Styrene exports declined sharply in March to 3,375,337 pounds valued at $395,225 after February shipments of 24.7 million pounds. Average price of March exports—11.7c. per pound.

Major shipments were made to:

Italy—2,221,017 pounds valued at $255,744 departed from Laredo. Average price per pound—11.5c.

Mexico—1,003,085 pounds valued at $117,732 departed from Laredo. Average price per pound—11.7c.

**Vinyltoluene**—Demand in domestic and foreign areas of the market continues well sustained.

Sole producer of VT reports that the recent price decrease for styrene monomer apparently has not adversely influenced movement of VT in accustomed channels.

Paint and polyester applications remain the predominant areas of use.

## *Chemical Makers Asking*

*—Continued from page 5*

stitutional basis for this control, or to argue the propriety of trying to tie control of pollution to control of navigation, we prefer simply to note our feeling that this approach takes the secretary much too deeply into purely local problems.

"Instead of extending this authority to all navigable waters we would favor leaving it to interstate waters, which could be re-defined to include coastal and border waters.

"If this last recommendation is not followed, and the secretary's jurisdiction is extended to cover instances of pollution occurring entirely within one state, then we feel strongly that no final action should be taken by the secretary without the concurrence of the authorities of the state.

"The present statute requires that at least one affected state must concur before a court action can be brought in instances of interstate pollution.

"There is even more reason where only one state is affected, to require the concurrence of the authorities of that state before the secretary files a court action.

"If the administrative order is to be used in place of a court decree, then the state authorities should have to concur before a hearing board is appointed, and there ought also to be more than one representative of the state on the hearing board."

## *Chemical Antitrust Probe*

*—Continued from page 4*

Loevinger, assistant Attorney General for antitrust, appearing before a house subcommittee in support of the Patman bill, HR 4570, to give publicity to instances of identical bidding on purchases by public agencies.

He told the committee that the department has been receiving numerous reports from government agencies on identical bidding since an improved reporting form was put into effect two years ago. This resulted in a number of significant investigations initiated in 1960, he said.

Mr. Loevinger stated that two suspect bid reports on dry ice procurement, coupled with similar reports received in earlier years, formed the basis for a grand jury investigation which led to the filing last December of the criminal contempt petition against four major manufacturers of carbon dioxide for alleged violation of a 1952 judgment.

James Henderson, general counsel for the Federal Trade Commission, who also supported the bill, said that since July 1958, FTC received twenty-six complaint letters on identical bidding from government agencies, county organizations, municipalities, private businesses and associations.

He listed the following among the products involved—rock salt, bunker fuel, quick lime, chlorine, cardboard cartons and containers, dichromate of soda, paper towels and yeast.

## Synthetic Flavorings Freed Of Tolerance Requirements

A list of twenty-seven synthetic flavoring substances has been exempted from the tolerance requirements of the food additives law by Food & Drug Administration, as generally recognized as safe.

The action was announced in an order issued by the agency last week, after a review of data submitted and comments of experts that had been gathered by the agency since the proposal to extend "GRAS" treatment to the substances was announced last August.

The products, together with their chemical names, are:

Acetaldehyde (ethanal), Acetoin (acteyl methylcarbinol), aconitic acid (equisetic acid, citridic acid, achilleic acid), anethole (parapropenyl anisole), benzaldehyde (benzoic aldehyde), brominated vegetable oils, n-butyric acid (butanoic acid), *d- or l-*Carvone (carvol), cinnamaldehyde (cinnamic aldehyde), citral (2,6-dimethyloctadien-2,6-*al*-8, geranial, neral), decanal (*N*-decylaldehyde, capraldehyde, capric aldehyde, caprinaldehyde, aldehyde C-10), Diacetyl (2,3-butandeione).

Ethyl acetate, ethyl butyrate (so-called rum ether), 3-methyl-3-phenyl glycidic acid ethyl ester (ethyl-methyl-phenyl-glycidate, so-called strawberry aldehyde, C-16 aldehyde), ethyl vanillin, eugenol, geraniol (3,7-dimethyl-2,6 and 3,6-octadien-1-ol), geranyl acetate (geraniol acetate), glycerol (glyceryl) tributyrate (tributyrin, butyrin), limonene (*d- l-, and dl-*), linalool (linalol, 3,7-dimethyl-1,6-octadien-3-*ol*), linalyl acetate (bergamol), l-malic acid, methyl anthranilate (methyl-2-aminobenzoate), piperonal (3,4-methylenedioxy-benzaldehyde, heliotropin), vanillin.

## *Ethylene Capacity in 1970*

*—Continued from page 3*

mandatory if the individual company wants to stay in today's competitive swim.

Specifically, Mr. Blum said, in order to maintain its present competitive position in the industry, a company will be required to produce about 40 percent more in 1965 than it did in 1955 and 100 percent more by 1975.

In his "Analysis of Capital Cost and Repayment for Industrial Expansion," Mr. Blum noted the conflicting conditions that have characterized chemical sales and profits over the past several years:

"Sales in 1960 generally exceeded the 1959 level, but the sales curves have shown a flattening trend. Profit margins leveled off or sharply shrank. Rising operating costs, frequent reductions in selling prices, and expanding competition severely strained decisions and policies."

"In 1955," Mr. Blum estimated, "every American at work supported himself and one-half other people. By 1975 each American must produce sufficiently to support himself and three and one-half people, in order to maintain the 1975 standard of living."

## *Collier Sees Project Boosts*

*—Continued from page 5*

excess of $6 million, Mr. Collier noted. He added that programmed expansion into additional product lines now calls for a much higher rate of investment, with an outlay of $11 million planned for 1961.

Through modifications and additions to Union's naphthalene process, Collier is progressing toward manufacture of methyl-naphthalenes, Mr. Collier pointed out. These aromatics are expected to figure prominently in synthetic fibers, insecticides, plastics and rocket fuels.

Sharing the podium with Mr. Collier last week were Union's board chairman, Reese H. Taylor, and its president, Dudley Tower, who reviewed the parent company's operations.

In the first quarter of 1961, Mr. Taylor reported, Union's earnings were $9.2 million, up 66 percent from the first quarter of last year.

Accounting for the steep increase were:

Replying to a question from the floor, Mr. Tower assured the group of Union's confidence in shale oil. The process, he said, is bound to become competitive in time, "although it is anybody's guess when it will come."

OPD Reports From Europe

# Chemical Companies in Europe Hope

—Continued from page 7

for 1960—just nosing out Union Carbide Corporation with volume of $1,560,000,000—reports domestic chemical prices fell about 2 percent overall in Britain last year, equivalent to a reduction of about $14 million in income.

The squeeze on profit margins means ICI, in record 1960, got "no more than an adequate return on the volume of capital invested," in the opinion of its chairman, S. P. Chambers. The report of Mr. Chambers, however, is silent on how 1961 has been going or what the prospects look like.

Shell group's petrochemical sales were roughly $550 million in 1960, out of a total gross of nearly $7.5 billion. The company states chemical sales were about 10 percent of volume of $5.5 billion after deducting sales taxes, excise duties and similar levies from total sales and operating income. These 1960 chemical sales represented a "substantial increase in trade that was not reflected in a corresponding rise in net income" due to pressure on prices.

**Confident of Chemical Operations**

Management of the Shell group says it is confident its "expanding chemical operations will make an important contribution to total group earnings."

Total Shell annual investment in chemical plants has increased every year since 1956, and in 1960 the $75.5 million, was about half the investment in oil refineries, which has been declining over the same period.

Recent weakness in British plastic prices hardly offer Shell and ICI much hope of recouping their margins soon. Monsanto Chemicals, Ltd., controlled by Monsanto Chemical Company, St. Louis, Mo., started a new round of polystyrene cuts averaging about 15 percent and carrying the standard price down to a shade over 22 cents a pound. Shell Chemical and Distiller Company, Ltd., the two other major British producers, have followed suit.

Polystyrene was hit by reduced demand from slumping domestic appliance makers in Britain, plus cheap imports of the plastic from the US, Canada and Italy. The last cut came in August of 1960, when 3.5 cents was lopped off by Shell first. Shell's capacity is estimated at about 18,000 tons a year, Distillers at 20,000 tons and Monsanto's at 15,000 tons.

**Polyethylene Prices Down 20 Percent**

In the last six months, polyethylene prices have dropped about 20 percent to 25.6 cents a pound with ICI leading the cuts, reflecting cheap import competition. Polyvinyl chloride, the biggest plastic seller in Britain, has also been weak, though not to the degree of polyethylene and polystyrene.

Both Shell and ICI now face much more determined competition in their fertilizer business from Fisons, Ltd., which is turning its expansion drives back into fertilizers after abortive attempts to move into the drug field with take-over bids. Fisons and Esso are joining forces to build an ammonia and nitrogen complex next to Esso's new refinery at Milford Haven, the only refinery in Britain without an associated petrochemical works.

Fisons will spend about $33.6 million on the venture, with Esso holding a half interest in the 150,000-tons a year ammonia plant. The ammonia will be piped to a nitrogen products plant, wholly-owned by Fisons. The ammonia plant costing $11.2 million will represent a 20 percent increase in current British capacity when it goes into operation during 1964.

ICI had a virtual monopoly in British ammonia until Shell completed its 75,000-ton-a-year plant at Shellhaven on the Thames river. Shell sells 60,000 tons of that output to Fisons. The new Fisons venture is part of the trend in the British chemical industry to greater vertical integration.

**Agriculture Sales the Biggest**

Last year 18 percent of ICI's total home sales were in agriculture, accounting for $150 million in volume. Other major sales areas were: textiles 15 percent, engineering 10 percent, chemicals 9 percent, car and aircraft 6 percent, building trade and plastics 5 percent each and oil refining 3 percent.

A big part of ICI success last year came in exports, which rose 10 percent to a record $270 million. Total overseas sales of the consolidated ICI group, but not including associated companies, were $715 million, approaching the $850 million sales in the United Kingdom home market.

Exports by ICI to the other seven nations of the European Free Trade Association, which takes a substantial part of exports of ICI's polyester fiber, rose 23 percent to $39.2 million, while exports to the Common Market were up 26 percent to $38.9 million. ICI, and the British chemical industry in general, would probably be major beneficiaries of British entry into the Common Market now being discussed more seriously.

Biggest percentage increase of ICI sales was to Russia and the East European satellites. Export volume in 1959 was $9.5 million, rising to $15.5 million last year. And the company is continually stepping up its sales efforts in the Communist countries.


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# TOILET GOODS ASSOCIATION

**26th ANNUAL CONVENTION**

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**MAY 9-11**

# Toiletries: What's the Sales Outlook? An Increase of 5.5 Percent This Year

Toiletry manufacturers will improve their business this year by better than 5.5 percent, "and a really good Christmas season could make this figure much too conservative." Such is the optimistic view of Raymond G. Fisher, marketing vice-president of Continental Can Company, New York, who told the Toilet Goods Association that the sales outlook for 1962 and '63 is even better—an increase "on the order of 8 percent to 9 percent a year."

Raymond G. Fisher

This glowing prediction, Mr. Fisher pointed out, is based on his conviction that for the next three years or so there will be a favorable climate for the economy as a whole.

"We can expect an unusually long period of business expansion," he went on. "And there is a good chance that this expansion could turn into a real boom."

If the economy as a whole grows, the Continental Can executive made clear, then toilet goods will also flourish. Specifically, he said, here's why:

**Why the Growth in Toilet Goods?**

- "There will be more money in the hands of more people."
- The public is likely to spend "a healthy proportion" of its extra income on personal care products.
- "Almost all the increase in employment will come among white collar workers."
- "More women will be holding jobs outside the home."

Mr. Fisher said he expects gains of better than 2 percent a year in the nation's standard of living. That is, income per person after taxes and after adjustment for inflation.

"There is no doubt," he continued, "that the American people have made their own physical well-being a major concern over the past decade.

"This is as evident from sales of health foods and athletic equipment as it is in your own sales," he told the cosmetics manufacturers.

"Total income after taxes rose about 71 percent during the 50's. (These figures are not adjusted for inflation, by the way.)

**Spending for Personal and Medical Care**

"But spending for personal care went up by 104 percent. And expenditures for medical care increased by 127 percent.

"I don't think there is the slightest sign that this trend is abating, and I wouldn't be surprised if it were accelerating."

Mr. Fisher indicated that the US labor force will, in his opinion, rise by nearly 10 percent between 1960 and 1965. This is how he sees the breakdown of this growth:

"The number of blue collar workers is expected to gain by less than 2 percent; the number of white collar workers should grow by about 17 percent."

And, he emphasized, it is these white

—Continued on page 62

# Toiletries Company: Should It Go Public?

Should a cosmetics firm go public? Toilet Goods Association got some expert advice on the pros and cons of this complex financial question from a specialist in the field—John L. Kelsey, a partner in Eastman Dillon, Union Securities & Co., New York.

There are a number of good reasons for going public, Mr. Kelsey suggested. Among them he cited the current public interest in the stock market, the need for additional funds, facilitation of an acquisition program and diversification.

**Why Not to Go Public**

One must weigh this against the disadvantages, he said. Among the reasons for not going public, the Eastman Dillon man listed these:

- The loss of absolute control.
- Your business becomes public knowledge.
- It's time-consuming.
- A public offering is too expensive.

A summary of Mr. Kelsey's talk, which

—Continued on page 54

# Toilet Goods Makers Heading For a New Industry Milestone: A Sales Volume of $2 Billion

Manufacturers of perfumes, cosmetics and other toilet preparations are fast heading for the $2 billion mark in retail sales. This bit of cheering news comes from Jean Despres, who last week was re-elected to a one-year term as president of the Toilet Goods Association. Mr. Despres, who is executive vice-president of Coty, Inc., reminded TGA at its twenty-sixth annual convention in New York that industry sales hit an all-time high of $1.8 billion in 1960. And, he noted, this increase of 7¼ percent "compares quite well" with the nation's economy. Gross National Product last year, he pointed out, increased only 4.3 percent.

Jean Despres

Mr. Despres recalled that it was only in 1952 that toiletry sales at retail topped the one-billion-dollar mark. In 1958, he added, the industry went over the billion-and-a-half mark.

Where did all of last year's retail sales take place? Here's what the TGA president reported:

**Breakdown of 1960 Retail Sales**

"Drug stores—meaning both independent drug stores and chain drug stores, totaling 54,000 outlets throughout the country—all drug stores accounted in 1960 for 26.2 percent of total retail sales of toilet goods.

"Second in point of volume are the food stores, with 22.9 percent of the total.

"Then come house-to-house sales, with 20.9 percent, followed by department stores and specialty stores (17.5 percent), limited price variety stores (8.8 percent) and all other retail outlets (3.1 percent)."

While he said he could not give "a true picture of sales by product categories," Mr. Despres made it clear that some of these groups "are on a definite upward trend."

"You all know this to be a fact, for instance, about hair products," he said, "and also about eye make-up products. It is also true of certain new types of make-up foundations.

"But," he continued, "there is one group of products which I do want to emphasize more particularly.

"I want to do so because, having personally been very close to those products during my forty years in this industry, I see many signs that, as a group, they are at the beginning of a long upward swing.

"I am referring to fragrance products of all kinds—perfumes, toilet waters and colognes, mists, dusting powder, bath preparations and many others. In short, all products that sell primarily because of their fragrance.

**The Aerosol Shot-in-the-Arm**

"In the last few years the fragrance business has already received one potent shot-in-the-arm with the sudden and growing popularity of mists or sprays, which are the names by which we refer to aerosols in the fragrance business.

"But, as I see it personally," said the TGA president, "there is another and better reason for a strong and long-lasting upward swing of fragrance sales.

"It is a fundamental reason. It has to do with a basic human fact; Throughout the ages, starting as far back as we have records of the history of mankind, fragrance has had a powerful appeal on men and women in all walks of life and has played an important, extraordinary role in their lives.

"The historians also show us that in all civilizations the same pattern develops in respect to all luxuries and to all the

—Continued on page 52

# Aerosols Seen Playing Bigger Toiletries Role

Pressure packaging of toiletries will have a "substantial profile" in the future based on the "three stalwart products of today—hair sprays and dressings, shave creams and perfumes and colognes."

So A. H. Lawrence, jr., manager of the aerosol section of the "Freon" division of E. I. duPont de Nemours & Co., Wilmington, Del., reported to the Toilet Goods Association.

He predicted the development of a foam dentifrice and the use of a piston-type package for a pressure-propelled dentifrice which would successfully overcome the disadvantages of the present aerosol product.

**Improvements in Valves Seen**

He visualized improvements in valves and propellent systems which would produce "soft non-billowy sprays" having drier properties and smaller particle size than those now packaged with mechanical break-up valves, and relatively dry sprays that could be pinpointed for special facial make-up.

Mr. Lawrence also foresaw the rapid growth of such new aerosol products as shampoos, personal deodorants, hand and suntan lotions.

Looking back at the strides made by

—Continued on page 59

## *Cosmetic Men Have No 'Nose' for News: Moran*

The fragrance industry, which regards the "nose" as a valuable asset in determining a salable scent, is woefully indifferent to the fact that a nose for news is equally important.

That's the opinion of Jim Moran, head of Jim Moran Associates, New York, author, publicist and TV personality.

In the perfume business, Mr. Moran told the Toilet Goods Association, the same imagination and excitement that goes into the creation of a scent must be applied to the industry's image.

Pointing out that perfumes, cosmetics and toiletries are an acknowledged part of everyday life, he contended that, therefore, every aspect of the industry—merchandising, sales and publicity—should have this "same scent of excitement."

# Cosmetic Customers: What Are They Thinking About?

What do the women of America think about the cosmetics industry? An insight into this obscure mental realm was provided by Mrs. Charlotte Montgomery of *Good Housekeeping* Magazine.

"First," she reported to the Toilet Goods Association, "they wish that the words on your packages and in your advertising were more helpful to them in their own terms—give them at least a glimmering to go on.

"Certainly they like things to be glamorous to look at and even some fun, perhaps. But going along with glamor there ought to be a sincere promise, a spicing of common sense and some information about how she's to achieve those dreams she dreams.

"I find young women today quite 'savvy'," Mrs. Montgomery continued. "Certainly they are too savvy to fall for voices that sound as if they are being dished through layers of soggy mashed potatoes. They laugh at such TV commercials—or are annoyed by their utter lack of believability.

"I know you have only seconds—but must you promise that one swoosh of spray will keep her hair in place for five days, while she rides a gale? Must you talk through fog—as if you didn't want her to quite hear what you're saying? Must your models act like idiots?

"When you show a sex idol lolling across a double-truck in satin toreador pants—who do you think identifies with her? The woman of today isn't looking for a 1961 Theda Bara to copy. (She finds it easier to identify with Mrs. Kennedy.)

"The bedraggled little would-be Bardots and Monroes haven't come from mass America. Nor have they been very good customers—not even for your soap."

As for toiletry products themselves,

—Continued on page 58

**TGA Convention Report**

# *Toilet Goods Makers Heading for $2 Billion Sales Mark*

—*Continued from page 51*

arts. Luxury and art always follow wealth. They always develop and blossom in a country shortly after it has become wealthy, and the greater the wealth, the greater their development.

"We are today — unquestionably — the wealthiest nation in the world, indeed, the wealthiest ever, beyond anyone's dream. And lo and behold, in the last ten or fifteen years, never has there been such a wide and genuine interest in luxury and in the arts, all the arts, as there is in our United States today. It is truly an amazing mass phenomenon. But it follows exactly the pattern which has been that of all civilizations, always.

"Now, fragrance is one of the arts—a minor art perhaps, but with a deep, mysterious, unique appeal of its own. And fragrance has always been one of the world's most wanted luxuries.

"But, today, fragrance, while it keeps its perennial aura of luxury, finds itself not only widely available to the great mass of a consuming public avid for luxury, but also, and for the first time in history, easily within its financial reach.

"So, by the very logic of these facts, fragrance is bound to come into its own in this, the wealthiest country ever, on a scale which has never been possible before.

"Finally, considering that fragrance in this country has never been as systematically and thoroughly advertised and promoted as most other categories in toilet goods—I firmly believe that we have in fragrance a magnificent challenge for those cardinal virtues of our industry—imagination . . . scientific know-how . . . good taste . . . and beauty."

Turning to federal legislation affecting the toiletries industry, Mr. Despres had this to say:

"Possibly this year, but almost certainly next year, there is likely to be a federal law requiring new cosmetics to be pre-tested before they are placed on the market.

"The recent incident involving eye-pencils has strengthened the demand on the part of professional consumer organizations and also of the public for strict legislation along the line of pre-testing."

The TGA president went on to promise that the association will see to it "that any legislation which is passed, not only will adequately protect the consumer, but also will be legislation under which the industry can operate."

In another federal sphere—the Federal Trade Commission—Mr. Despres pointed out that the agency under its new chairman (Paul Rand Dixon) is likely "to be more vigorous than it has been in the past."

And, he added, it no doubt will try "to make decisions more promptly than heretofore in cases involving advertising and promotions, antitrust matters and mergers."

**RE-ELECTED TGA VICE-PRESIDENT: Oscar Kolin of Helena Rubinstein, Inc., New York, who was re-elected a vice-president of the Toilet Goods Association.**

Reporting on the state legislative situation, he said:

"With forty-eight out of fifty state legislatures in session this year—but so far with most state legisltures adjourned — no bills affecting our industry adversely have been passed by any state.

"I cannot tell you how sorry I am to be obliged to declare now that the fair trade situation is not good at all.

"At the present moment there are twenty-six states where there is a fair trade law which is enforceable, and twenty-four states where there is no fair trade law or where it can no longer function as it was supposed to.

"And it makes matters worse, there are two active groups in the country, both with their own ideas—a condition which is likely to spoil the chances of any fair trade legislation this year.

"As you may know, I have personally been a really active supporter of fair trade myself. And in so doing I have been reflecting not only my own feelings and experience, but also the views and the position of the firm I am connected with.

**Despres' Personal Fair Trade Formula**

"Please allow me, therefore, to express now a personal viewpoint, better yet, a personal formula which I have found very useful in the many battles I have fought in the field when fair trade could not be invoked in cases of price-cutting.

"Fine toiletries, such as those my firm has always made and sold, are more indebted to certain subjective factors than any other type of trade-marked products. Those subjective factors, of such paramount importance to fine toiletries, are imagination . . . good taste and beauty.

"It is very simple to understand why it is so. Indeed, a well-known advertising woman summed it up perfectly some years ago when she remarked that women buy toiletries with their hearts and their emotions, whereas they buy their groceries with their heads.

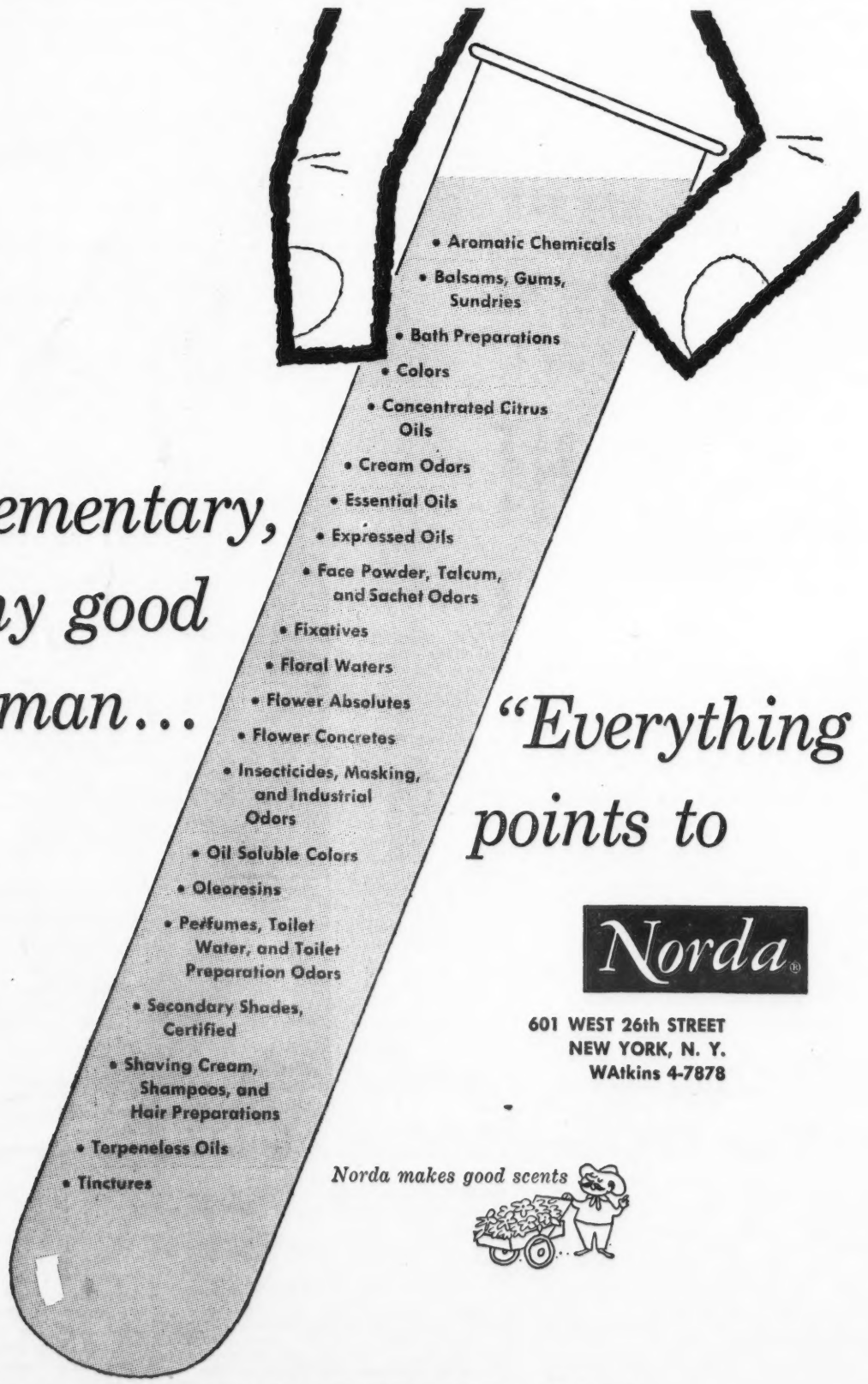
"Now," Mr. Despres continued, "whatever one wants to buy with the heart and the emotions is always marred, spoiled, dirtied and often lastingly hurt and damaged when the sales appeal consisting of the confidence and the hope created by imagination and beauty, is switched to the uncertainties, the doubts, and I dare say the brutalities engendered by price-cutting and price-wars.

**They Don't Realize the Damage Done**

"Now, and this is an important phenomenon, it has been my experience over the years that the retailers who apply cut-price tactics to the selling of your fine toiletries have NO idea that they are seriously damaging your products and their valuable trade-marks.

"This has not occurred to them. They may even honestly believe that they are helping to widen the sale of your merchandise in the long run—as they may indeed be doing when they cut the prices on merchandise which the public buys with its head and not, like your merchandise, with its heart and its emotions.

"As a rule," he concluded, "those retailers have nothing against you or your firm. They even think they are doing you a favor. And so, the argument that they are actually doing serious damage and lasting injury to your property comes as a surprise and a shock to them and is often the winning move in any attempt to clean up a messy price situation. For it is a powerful argument, since it is an accurate statement of the facts of life in the industry of fine toiletries."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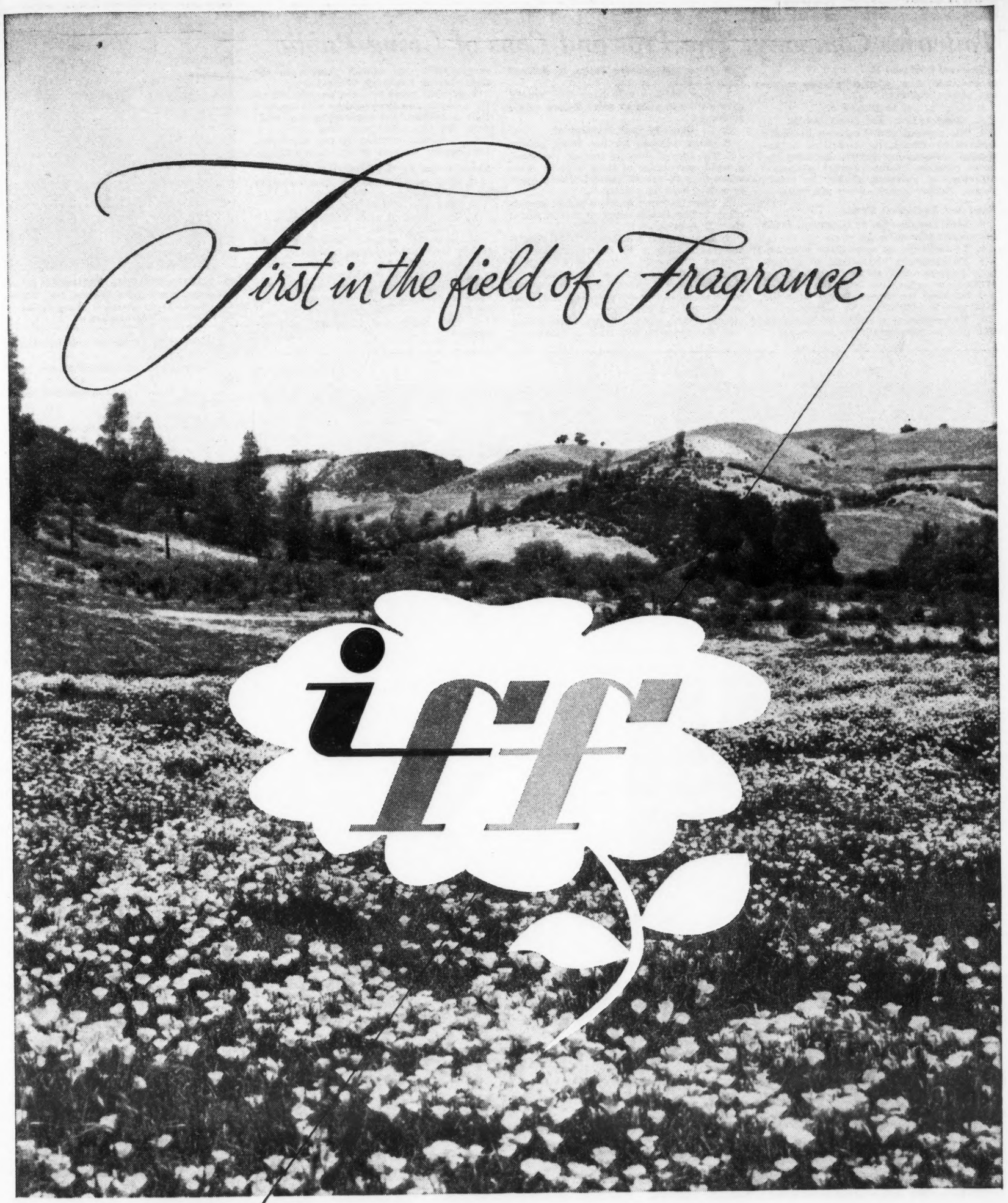


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**TGA Convention Report**

# *Toiletries Company: The Pros and Cons of Going Public*

*—Continued from page 51*

is a virtual "how to do it" outline on going public, follows:

I. To go or not to go public.

A. Some reasons for going public:

1. The current public interest in equity securities. (Refer to Securities & Exchange Commission figures showing the large increase in the number of public offerings of common shares in recent years). Higher prices—more offerings.

**Need for Additional Funds**

2. Your company needs additional funds for some purpose.

3. To facilitate an acquisition program.

4. To eliminate obligations of a company to re-purchase owners' stock in case of death or separation from the business and the need for expensive key man life insurance to help meet this obligation.

5. To emphasize a restricted stock option plan to compensate key employees.

6. Some advertising value is derived from a public offering.

7. Shareholders will have the benefit of a public market to solve future estate problems.

8. To diversify your investment.

B. Some reasons for not going public:

1. The loss of absolute control. However, a small percentage of stock held by management still means control where stock is widely held by public.

2. Your business becomes public knowledge. (The initial shock of this is worse than it seems).

3. Management will have a quasi-fiduciary responsibility to the public shareholders. Minority shareholders are well protected by the laws in most states.

4. The federal securities act of 1933 imposes certain civil and criminal liabilities on officers and directors.

5. A public offering is time-consuming.

6. Management will have a continuing responsibility to submit reports to the Securities & Exchange Commission.

7. If your securities are popular security analysis and stockholders will expect a flow of information concerning your business. All this takes your time.

8. A public offering is too expensive. Particularly true of small underwritings.

**Examination by the Underwriter**

II. The examination of your company by a prospective underwriter.

A. The size of the business.

B. The trend of sales and earnings.

C. Profit margins.

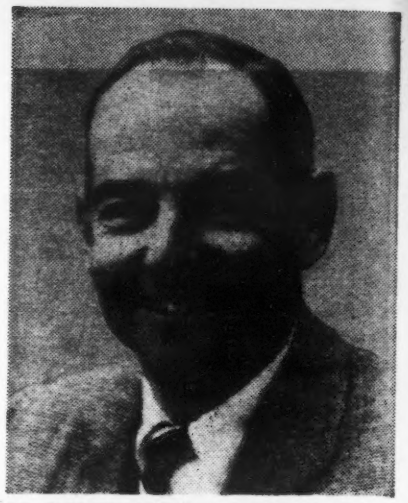
D. Industry outlook, including technology and obsolescence problems.

E. The sufficiency of working capital.

F. Products and customers.

G. Amount of government business. Are there cancellation or renegotiation problems?

H. The depth and capability of management.



**RE - ELECTED TGA VICE - PRESIDENT:** George L. Schultz, president of Shulton, Inc., Clifton, N.J., who was re-elected a vice-president of the Toilet Goods Association.

I. Continuity of ownership subsequent to the offering.

J. Source and availability of raw materials.

K. Are there tax problems or major legal problems?

L. Condition of assets.

M. Capacity of facilities for growth.

N. Contracts

O. Salaries, options and incentive compensation plans.

III. What will an investment banking firm underwriting your company's securities require of your company?

A. That your company's audited financial statements be prepared or reviewed by a nationally recognized firm.

B. That you elect one director to be named by the underwriter and that he approve the selection of a second outside director.

**Management Contract Required**

C. That the company enter into a management contract with a key person or key persons in management.

D. That leases, contracts and other arrangements between the company and affiliated persons be reasonable.

E. That option plans, incentive compensation plans and officers compensation have a reasonable relationship to the size of the company.

F. The right of first refusal of future financing during the next three to five years.

G. Restrict the sale of additional shares for three to six months.

H. Agree to make application to list shares on an exchange if requested by the underwriter.

I. Give or sell shares or options to the underwriter.

J. Indemnify the underwriting group against certain liabilities arising because of misstatements in the registration statement.

IV. The registration of securities under the securities act of 1933.

A. By and large the act provides that any public sale of securities amounting to $300,000 or more must be registered with the Securities & Exchange Commission.

1. The function of the SEC is not to approve or disapprove of an issue, but to make sure that all pertinent information is presented clearly to the public.

**The Time Schedule of Registration**

B. Time schedule of a registration.

1. For a first registration it should take about six weeks to prepare the registration statement for filing (the accounting generally will take the most time).

2. It will take about forty-five days from the filing date to become "effective" or until the offering is cleared by the SEC for sale.

3. During this time the underwriter will be forming an underwriting group to give the issue wide distribution.

4. The final price and underwriting spread will usually be determined the day before the effective date.

5. You will sign the underwriting agreement next day, and the issue will become effective that morning or afternoon.

6. The formal public offering will be advertised the following day.

7. The closing and payment for the securities will take place about six days later.

8. Thus, the total time between the decision to go public and final closing should run about twelve weeks.

C. Preparation of the registration statement.

1. This is a responsibility of the com-

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YOU put it there, of course. Though the young lady dressing for her big date may not know it, the perfume she's using — like many other cosmetics on her dressing table — very likely contains ethyl alcohol bearing the U.S.I. label.

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BOUQUET D. Y. N. No. 36
BOUQUET EXOTIC No. 40
BOUQUET E. P. No. 25
BOUQUET E. P. No. 48
BOUQUET G. E. No. 25
BOUQUET I. N. T. No. 32
BOUQUET J. Y. No. 36
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**BOUQUET 1950**
**BOUQUET 1954**
**BOUQUET M. C. 107**
BOUQUET M. S. No. 25
BOUQUET M. T. No. 825
BOUQUET R. G. No. 48
BOUQUET RONDO No. 28
BOUQUET S. T. No. 36
BOUQUET T. W. No. 24
BOUQUET W. H. U. No. 32
**BOUQUET W. S. No. 32**
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CHYPRE EXCELLENT
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**COMFORT ME**
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EAU DE COLOGNE SUPERIOR
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**ELAN TIBET No. 40**
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FLEUR D'ORIENT
FLEUR DE TABAC
FLORIDA WATER SUPERIOR
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FOUGERE SUPREME
GARDENIA SUPERIOR
GARDENIA Y
HAWAIIAN GARDEN BOUQUET
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HYACINTH
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THIO MASK No. E 2343
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pany and its counsel, although in many cases the underwriter and his counsel being more familiar with registration can be very helpful.

2. One of the initial steps is to arrive at the best recapitalization of the company's shares in the light of the proposed offering.

3. The required financial statements are:

(a) A balance sheet dated not more than ninety-days prior to the filing date.

(b) If this balance sheet is not audited, the latest year end audited balance sheet must also be included.

(c) Usually the underwriter will require that the interim balance sheet be audited.

(d) A five-year summary income statement with the latest three years audited.

(e) If an interim balance sheet is used, interim income figures must be shown for the current period and the comparable period of the previous year.

D. The following information must be included in the prospectus which is part of the registration statement:

1. The use of the proceeds from the offering.

2. The capitalization of the company before and after the financing.

3. The financial statements already mentioned.

**Facts About Organization**

4. Where and when the company was organized and its parents if any?

5. A complete description of the company's business including:

(a) History.

(b) Products.

(c) Competition.

6. A description of the company's property.

7. Pending legal proceedings if any.

8. A list of the officers and directors and their compensation from the company.

9. Option and profit sharing plans.

10. The principal holders of the company's voting securities.

11. The interest of any affiliated persons in material transactions of the company.

V. The expenses of a public offering.

A. The following are estimated expenses of a public offering of $4,000,000 of common stock:

| | |
|---|---|
| Accounting | $10,000 |
| New Issuance Tax (10c. per $100) | 4,000* |
| Filing Fee | 400 |
| Printing Certificates | 1,000 |
| Printing S-1 | 10,000 |
| Blue Sky Fees and Expenses | 5,000 |
| Legal | 10,000 |
| Miscellaneous | 4,000 |
| | $44,400 |

* If the shares are being sold by shareholders there would be no new issuance tax but transfer taxes of about $6,000 would be paid.

B. The underwriting spread, which is the difference between the public offering price and the cost of the securities to the underwriter, usually does not vary between underwriters.

1. It will depend on:
(a) The size of the offering.
(b) Market conditions.
(c) The offering price of the stock.
(d) The yield.
(e) The nature of the business.

2. Typical underwriting spreads by offering price are as follows:

| Offering Price | Gross Spread |
|---|---|
| $10 and under | 10% |
| $10 to $15 | 8.75% |
| $15 to $20 | 7.50% |
| $20 to $25 | 7.25% |
| $25 to $30 | 6.80% |
| $30 to $35 and so forth | 5.60% |

Source: Compiled by Eastman Dillon, Union Securities & Co. based on 241 cash public offering during 1960 of non-utility common stock issues.

3. Of the underwriting spreads very little represents pure underwriting profit. For instance an offering at $20 would command a spread of $1.45 based on the above. Of this approximately 45 cents is left after expenses to offset possible underwriting losses.

**Pricing of An Issue**

VI. The pricing of an issue.

A. In early discussions with your underwriter he will estimate the offering price necessary to sell your shares. The estimate will be based on:

1. A comparison of your company with other similar companies.

2. Market conditions.

3. The outlook for your company.

4. The expected dividend rate which will be paid.

5. Book value (the least important factor currently).

B. In the last analysis, the public and other underwriters will determine the price by the degree of interest shown during the registration period.

C. It is extremely important for you to have complete confidence in your underwriter.

VII. Selecting the right underwriter for your company.

A. The underwriting spread and the offering price should not be factors since most managing underwriters will arrive at the same conclusions.

**How to Choose An Underwriter**

B. Here are some things to consider in making your choice:

1. Is the underwriter too large or too small to do the right job?

2. The type of underwriting agreement he will enter into.

3. His ability to form the right underwriting group to make a proper distribution.

4. Is he willing to support the market for your securities if the offering is not "out the window"?

5. Will be maintain an over-the-counter market in your stock after the offering?

6. Will he be ready to give you investment banking advice, introduce you to potential acquisitions, do merger studies, arrange private financing and help arrange for bank credit?

7. Will be release your corporate news to the other underwriters and his sales organization?

**RE-ELECTED TGA VICE-PRESIDENT: D. H. Williams of Sterling Drug, Inc., New York, who was re-elected a vice-president of the Toilet Goods Association.**


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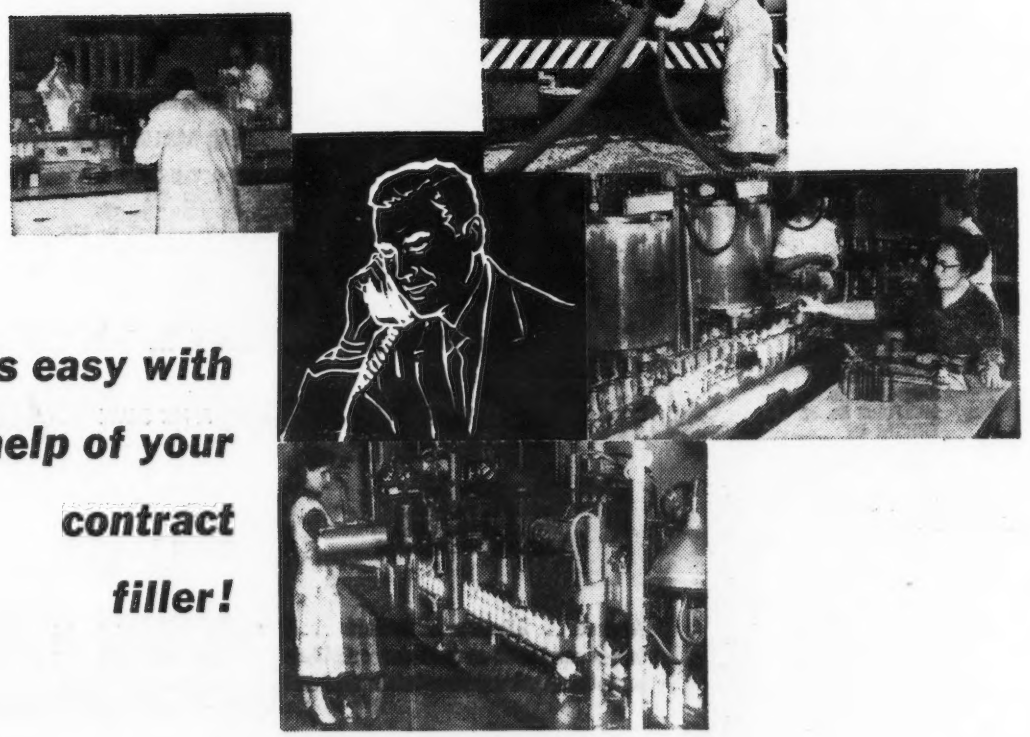

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**TGA Convention Report**

# *Cosmetic Customers: What Are They Thinking About?*

—*Continued from page 51*

Mrs. Montgomery asserted, women would like to see a lot of changes and improvements.

"They love aerosols," she explained, "but complain about that package—the valve that gives up, the difficulty of guessing how much is left; they complain about the odors in hair sprays and about conflicting odors in the cosmetics they use.

"They'd like smaller sizes to 'try out'; they want more and more products in unbreakable plastic bottles, tubes and jars. They'd like your address on your packages—to them you appear to be trying to duck responsibility when you merely say 'New York' or 'Hollywood.'

"They'd like more packages to be attractive when 'out of sight'—no screaming labels. They wish nail polish wouldn't get thick, that the caps wouldn't stick on the bottles, that the brushes reached to the bottom.

"This applies, too, to the plungers on squirt dispensers. She is justifiably annoyed when she buys a product, takes it home, gets ready to use it—then finds in fine print that she needs some accessory, or fresh peroxide, or an applicator, or such!"

Mrs. Montgomery pointed out that "the problem of hair in the wrong places is a huge one," and, she felt, it "apparently needs a great real more basic research than has been given to it. She charged that some recent product claims have been "downright irresponsible."

What about this? she asked the toiletry manufacturers. How can things go so far? What about self-policing?

"Do you do," she went on, "just a little, hoping people will think of you as 'the good guys'? Do you take an active role against offenders? Or do you say—'Oh, he's a fringe operator. He only runs in those you-know magazines.' As if it makes a difference where you lie and whom you cheat!"

Mrs. Montgomery reported that women are seriously concerned about products that are "potentially dangerous" and that they write and ask her about this.

"They read that some products have been on the market and heavily promoted before their danger is discovered. They ask me how this could possibly have happened."

Above all, she said, women need the industry's help, service, answers to their needs and wants—in their terms. By way of illustration, she quoted from a letter that came in from a *Good Housekeeping* reader:

"I feel I can write to you about a personal problem," wrote the GH reader. "Can you help me? . . . I am to be a Den Mother for my son's Cub Scouts.

**What to Do About Make-Up?**

"I enjoy this immensely, but I am so self-conscious about my looks that I find myself making up excuses not to meet with the adults . . . I've never been taught what or how to use make-up so I don't wear any.

"There are so many products on the market that I am at a loss when I go to a cosmetic counter. I am twenty-eight years old, happily married and have two children . . . I hope you don't think this is a silly problem because to me it seems huge."

This kind of letter, Mrs. Montgomery emphasized, is "an everyday affair" at *Good Housekeeping*. And, she added, it is ample proof that the industry is not doing the job it could or should be doing.

"Instead of taking the young woman by the hand and telling her what to do—you give her exotic packages and art, meaningless 'purple prose'," she declared.

"If she buys a product (in spite of this) and takes it home, the instructions are often confusing, full of more claims, and in print so small she can't read it. She is—as you see—bewildered and not happy about her bewilderment."

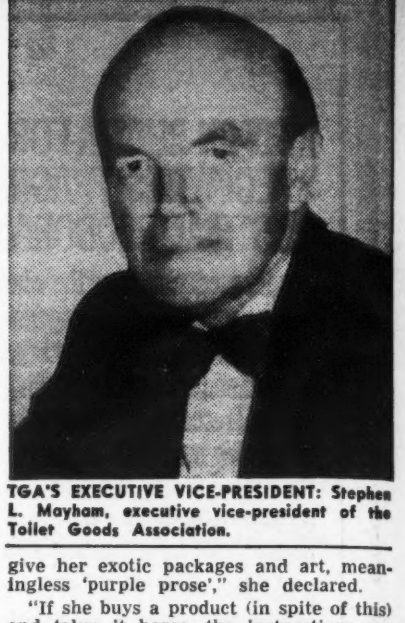
**Urges Frank Facing of Problems**

Concluding her indictment, Mrs. Montgomery called upon the toiletries industry to face its problems frankly.

"Let's have hair-do's that last more than twelve hours; let's have cosmetics that make us prettier rather than making us look anemic or degenerate.

"Let's have claims that are true—and stated so that they are believable; let's not break faith by following phony gimmicks, no matter how primrose and profitable that path may seem for the moment.

"Let's have packages that are attractive, convenient, workable, and designed with the customer's needs at the top of the list."



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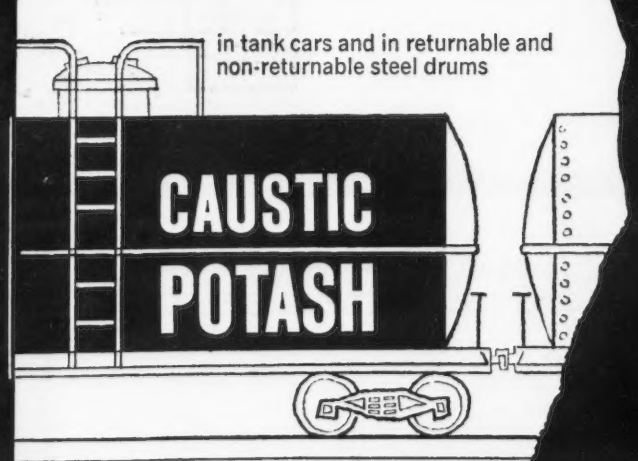


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**TGA Convention Report**

# *Aerosols Are Seen Playing a Bigger Role in Toiletries*

**RE-ELECTED TGA TREASURER: Philip C. Smith of Yardley of London, Inc., New York, who was re-elected treasurer of the Toilet Goods Association.**

—*Continued from page 51*

pressurized toiletries over the past ten years, Mr. Lawrence noted that four product types—hair preparations, shave foams, personal fragrances and dentifrices—now account for over 90 percent of aerosol toiletries and about one-third of all pressurized products.

Hair sprays, first introduced in 1949, were produced at over 100-million-unit rate in 1960, after going as high as 110 million units in 1958, he said.

Shaving foams, starting in 1950, reached 75 million units in 1959 and probably went over that figure last year.

"We know of 160 brands of pressurized hair dressings and at least sixty-seven brands of shave foams that have been put on the market in the last five years," he said.

"Aerosol packaged perfumes and colognes, available for only the last seven years, are now selling at a rate of more than 38 million units annually, and the 157 brands of which we have record probably represent only 70 to 80 percent of those in existence," Mr. Lawrence stated.

He pointed out that pressurized dentifrice failed to achieve wide public acceptance due principally to the problem of complete disharge.

He predicted, however, that this objection would be overcome by improved package design and the use of a new propellent which would combine to create a toothpaste ribbon that foams on the brush.

**Key Passage From Address**

Here are key passages from Mr. Lawrence's address to TGA:

The artist who draws the profile of pressure packaging in the future will have several pens and inks from which to choose. He will have the pen of market acceptance of today's pressurized toiletries. He will have the stylus and stimulus of toiletry people and aerosol people striving together and separately to create growth within their industries.

He'll have that economic situation which keeps people looking for convenience, and useful novelty, and a situation which is bombarded with competition from other packaging forms. He'll be able to draw on more people doing more things in more places with efficient and concentrated work time and more imaginative use of leisure time.

He'll have more tools from medicine and from science which will offer pressure products of more purpose and at the same time more ingenuous scientific frivolity. He'll be inspired by the new structural materials available to surround his product with and hopefully encourage the development of these materials so that pressure products may be made to eject slower and faster with more control and with less control from bigger and smaller, simpler and more complex containers.

Finally, the artist will have to shade the profile with a sensible appraisal of the effect of his products on the human senses. For in the final analysis, pressure packaging is not a concept, it is a product; and if the product is a toiletry or cosmetic, the profile will reflect answers to the questions—"are my products reasonable or are they ridiculous?—do they, after all, emerge as products which meet the toiletry or cosmetic test?—do they improve one or four senses of the wearer or an observer?—do they improve the sense of sight or appearance, the sense of touch, of taste or sense of fragrance."

(Perhaps, sometime there may be a more pronounced toiletry aspect to that fifth sense, the sense of hearing, and give it, too, a monitor's place in the future profile.)

Let's examine how future growth starts with what producers and consumers have done with pressure-packed provisions of the past—most notably hair sprays and dressings, shave foams, aerosol personal fragrances, and dentifrices. These four product types comprise about 90 percent of pressurized toiletries and almost two-fifths of all pressurized products.

Liquinet introduced a hair spray in 1949. Products like this were spawning at the rate of 55 million units annually by 1955 and by 1960 were producing at a 100 million rate. We know specifically of only 160 brands of pressurized hair dressings which have been on the market in the last five years.

Shaving foam from a package, created by Carter Products in 1950, was billowing at a rate of 53 millions of units in 1955 and by 1960 was probably at a rate of about 75 million units.

There are at least sixty-seven brands of pressurized shaving foam that have been produced is the last five years with virtually every shaving product manufacturer having a packaged foam in his line.

Pressure packaged fragrances for personal use started climbing from 1953 to 7 million units in 1955 and in 1960 to close to 40 million units. We know of at least 157 brands of pressurized colognes and perfumes and this is probably 70 to 80 percent of the number known to all of you.

The controversial and present fourth member of the pressurized toiletry family, dentrifrices, had no years of growth. It had a year of being, and some think since may have become a "has been." I think not, however.

We see what has happened to pressurized toothpaste production since it was first introduced by Colgate in 1957. Of the seven nationally known brands of aerosol toothpaste, the number of survivors in production is uncertain. Certainly, there is opportunity in this product for problem solving.

**Complete Discharge of Toothpaste**

The problem of complete discharge of toothpaste, which has dogged its acceptance by the teethbrushing public, is on the way to being solved by other pressure-package design—namely the piston package. A less obvious design will be forthcoming—use of a different propellent approved by Food & Drug Administration and a different valve, a combination which can create a toothpaste ribbon that foams on the brush.

Added to the four major categories of pressured products in our industry, we will add another category which, of course, is "the hope of the future." This category presently includes such comers as personal deodorants and hand lotions, and such other products as shampoos and


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## TGA Convention Report

suntan lotions which have been in the "low production but useful product" group for some time.

This next slide shows the average percent change in the total market for colognes, shave creams and dentifrices in the last decade and illustrates the increment which pressurizing adds to the product sales figures and fortune with which you are well familiar.

We mentioned earlier that the face of the future must reflect compatability between the aerosol specialist companies and the toiletry specialist companies. The last decade has been more exciting for you toiletry people because of aerosols and their industry—that industry which comprises heterogeneous sources of people who are chemists, physiologists, engineers, businessmen, inventors, innovators, making up companies large and small and culminating in the competent aerosol contract filler establishment.

These are the people who have made life exciting and contributed handsomely to the profitability of toiletry markets. They, in turn, have profited from your (the toiletry industry's) embracement, and they are grateful.

**Profits for Contract Filler**

Let us be sure that profit incentives to the contract filler are not choked off to the point where the toiletry industry loses the service of this friend's mind, his people, and his plant. The profile of the future will be a bolder one if pressurized packaging people and toiletry people will work, produce, advertise and sell together and maybe, above all, if they will dream together in the days ahead.

* * *

Medicine and science are trying independently of these two industries, aerosols and toiletries, to create the chain stoppers of old-age chemistry. But the look and feel of youth has been created by these industries in many an aging profile, and the profile of the future will be more vigorous because of it.

These activities, plus our nation's emphasis on safety at home and in industry, plus an undercoating of religious enlightenment, have produced an interesting pattern of life longevity.

The average life expectancy at birth is

**TGA'S SCIENTIFIC DIRECTOR: H. D. Goulden, scientific director of the Toilet Goods Association.**

shown on this slide and how it has changed for those born from the year 1900 to the present. It is interesting to predict an ultimate reasonable life expectancy for men and women, both within and without the pressurized packaging industry. Let's take a word from the animal kingdom for guidance, here.

I am told that the average life expectancy, for instance, for dogs and cats is nine times their age of maturization. If, therefore, one applies this convenient principle to humanity and estimates that the average age of human maturization is fifteen years, we can conclude that a reasonable ultimate life expectancy for humans is about 135 years. Extrapolating the chart of progress here it appears we'll reach this life expectancy somewhere after 2100 A.D.

I do wish that science, medicine and religion, and we in toiletries, would step

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TGA'S EXECUTIVE SECRETARY: Kathryn Fitzpatrick, executive secretary of the Toilet Goods Association.

up the pace a bit because living can be a lot of fun and I'm enjoying it. One might also suggest that as life longevity becomes more and more a major factor in toiletry sales, there inevitably must be a stronger medicinal aspect to toiletries.

These aspects should tend to invigorate rather than cover up. And the pressure package is helping—and should be encouraged to help more. It is helping the way of any new product or concept stimulates investigation and research. I am thinking of the kind of medical work that is evaluating the pressurized dosage form over other forms.

**Safety of New Products**

I'm thinking too of the areas opened when medical research explores the safety of new products, and how this work helps create knowledge and desire to find product that make even greater contribution to improved sight, feel and smell than existing products.

The challenge here is for toiletry men to direct the financial profits and application techniques learned from pressurized products in such a way that the future profile will be better illuminated by light from medicine.

The disposable elements of the pressurized package are themselves continually pressured to become less of an increment in package cost. The cans, valves, propellents, labels, caps and cartons of the future must all somehow have survived this pressure. And they will survive, as they have in the past by their innate contribution to the package itself.

The makers of these disposables are part of the tribe of scientists and magicians who have become attached to the toiletry tribe and they will be offering you opportunities as they have in the past. The trade journals are full of their newest wares.

So it is easy to forecast a container profile that has more plastic than today's dozen commercial shapes; that has more aluminum; that has more than eight metal diameters; and more than fifteen metal altitudes. Modern metal aerosol container designs is difficult to change economically unless 25 million of a particular design can be seen as annual production.

**Metal, Glass and Plastics**

I would guess that metal container industry will have more toiletries of this volume to serve as inducement for faster model development, and the design flexibility of glass and plastic will give the conventional straight-sided tin-plate container a more non-toiletry aspect than that container exhibits today.

Pressure product valves, like the packages themselves, are only a little more than ten years old. The valve industry has kept pace with the growing product list. The price penalty for originality in valve and button design has kept uniformity in appearance the general rule. And there need be nothing wrong with uniformity if it is high quality and performs as expected. But uniformity creates pressures for non-uniformity.

And so it is with propellants. Today's list of the propellents is not the complete list of five years from today. The inter-relation of valve and propellent system is just beginning to be understood outside the realm of "cut and try." In future products, if the valve is more versatile, the propellent can be less versatile and vice versa. There are specific opportunities for valve and propellent systems improvements:

1. Produce soft non-billowy sprays having dryer properties and smaller particle size than those now packaged under mechanical breakup valves—to produce products which can be applied to broad areas of the body without cooling or over spray.
2. Develop ways to pinpoint a relatively dry spray—a dry spray which may be right for certain facial makeup but which now is only available in sprays of too large spray pattern.

It seems to me in the pattern of the future there will be a need too for valves to operate so that they are not like the twelve o'clock whistle—all on or all off—but rather like the brush in the hands of an artist. And why artistry in the application of sprayed cosmetics! Could it not be that color spectacular on the body now reserved to fingernails, hair, lips and eyes become fashionable to other parts.

It requires some rather well directed spray efforts—to illustrate the point, a knee design, for instance, to slim the knee down and give a little "accent egue" to that "now you see it—now you don't charmer," depending on whim in the hem length.

Here the gay arm spots are just the thing to replace jewelry and add a note of color where it has not been before. Perhaps, too, a well-placed spray could emphasize the plunge in the plunging neckline. Certainly this should be no more deceiving than enlarging the orbs with eye make-up or contracting the waist with stretchable materials.

Here a few pastel dots to bring out a charming back. It's a little hard to figure out what kind of an applicator this lady would use for this treatment. We would suggest a male companion applicator as being the most logical.

Perhaps at this point you have difficulty remembering the last element our artist uses in drawing the future of pressurized toiletries—well, it was sensible appraisal. Without commenting in the manner of a censor, here is a bi-sexual figure showing what pressurized products have already been available—only a half-dozen of which are setting the pace for tomorrow's sensibility in pressurized toiletries.

Where will the next pressure product strike the human form to give it that something hitherto unnoticed? Is it to be a reawakening of some of these products? Our artist is not sure, but he can conclude pressure packaging of toiletries is going to have a substantial profile based on the three stalwart products of today—hair sprays and dressings, shave cream and perfumes and colognes.

**Foam Dentifrice in the Future?**

My artist expects the dentifrice to become a foam and, therefore, a rejuvenated pressure package. He expects science and technology to carry toiletries beyond the stage of alchemy and into areas which hold the old as well as the young to keep longer what is good for the sight, smell, taste and touch in the human form.

Lastly, my artists expects the materials that surround the products themselves to keep pace with the changes that take place inside the package as well as the change that takes place in the people outside.


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**TGA Convention Report**

# *Toiletries: What's the Sales Outlook?*

—*Continued from page 51*

collar workers—office personnel, professional people and, by and large, well educated people—who buy the largest amounts of toilet goods.

While conceding that this is not a new trend, Mr. Fisher pointed out that it will continue to provide the cosmetics industry "with growing markets in the near future."

As for the growing number of working women, here's how he analyzed this factor for TGA:

"The number of women in the labor force will rise about one-third faster than the total labor force. And these working girls (of all ages) are also among your best customers.

"They have incomes of their own which they can spend, at least in part, as they choose. And they choose to spend a hefty amount for toiletries and cosmetics."

**The Unfavorable Age Composition**

But, Mr. Fisher stressed, all is not clear sailing for the industry. For example, he noted, there's the unfavorable age composition of the population.

"Population growth for the next five years," he explained, "will be weighted to the age groups that spend less per person for toiletries than the average."

To point this up, he gave these figures for women:

"The total adult female population will rise by about 9 percent between 1960 and 1965. But the number of women aged thirty to thirty-nine will decline by more than 6 percent, and the number aged forty to forty-nine will rise only a little over 5 percent.

"These are the ages when women tend to have reasonably sizable amounts of money to spend—along with a particular disposition to spend them on [toiletry] products.

"But adult population growth for the next five years will be considered between the ages of fifteen and twenty-nine, and in ages of fifty and over."

To Mr. Fisher's "untutored eye," these facts make it rather apparent "that there is a considerable potential payoff awaiting successful promotion at the two extremes of the age scale."

But all this cosmetic industry growth, he reminded TGA, is based on his forecast of a favorable climate for the economy as a whole. Supporting this prediction, he declared that, in the first place, "the recession is over"—a fact recognized by "just about every qualified economist in the country."

Then, he gave these reasons:

**Why the US Economy Will Grow**

- "I believe US industry is healthier today than it has been for a long time. By healthier I mean tougher and more efficient—thanks to several years of very intense competition—and more alert new opportunities."
- "The demand for consumer durable goods will rise faster in the next few years than it has for some time."
- "Business needs to increase the rate at which it is replacing old and obsolescent equipment."
- "We are apparently going to get some help from Washington in this [equipment replacement] area"—not a tax cut, but a plan to spur new plant investment.
- "This is as good a time as any to say that I think the political atmosphere in Washington will on balance be favorable to business expansion during the next few years."
- "We will have a more favorable climate for expansion in the money markets, too."
- "Finally, there is reason to expect an extended period of growth—whether you like it or not—in government expenditures."

Of course, he added, the nation will continue to be faced with some serious economic problems—inflation, high unemployment, farm surpluses, high tax rates and the constant danger of a revived outflow of gold.

Nevertheless, Mr. Fisher concluded, the prospect is for steady business expansion over the better part of the next three years.

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**TGA Convention Report**

**RE-ELECTED TGA DIRECTOR: Daniel H. Reheis, president of the Reheis Company, Berkeley Heights, N.J., who was re-elected to a one-year term on the Toilet Goods Association's board to represent associate members.**

# Packaging Design: Whys and Wherefores

The whys and wherefores of good packaging design were detailed for the Toilet Goods Association by a specialist in the field—Ernst Ehrman of Ehrman & Reiner, Inc.

Mr. Ehrman told the cosmetic manufacturers that "a good product deserves honest packaging." Efficient, workable containers that give consumers the home-use convenience they anticipate from the package will extend impact, he maintained.

"In cases where the very nature of the product demands the use of a stock-shaped container, as with aerosol, for example, a truly creative graphic approach may be all that stands between choice of your brand and selection of another," he contended.

**The Competitive Marketplace**

The experience of a professional designer is needed here as elsewhere, he said, to guarantee that a toiletry product "can stand by itself in a tremendously competitive marketplace."

Following are excerpts from Mr. Ehrman's address:

For any package to build sales, in any retail setting, it must of course attract instantaneous attention, and impart a sense of immediate recognition.

It must reflect and reinforce the company image, and instill confidence in the consumer. It must measure up to its product price by reassuring the buyer of his money's worth.

It must tell the product story in simple, easily-assimilated terms. It must protect the contents, be easy to handle and satisfactory to use.

And it must underline the nature of the product within, establishing a feeling of need or desire on the part of the prospective customer.

The package must also meet a myriad of problems from the retailer's point of view, such as convenience in stocking and displaying it, demanding minimal use of sales clerks' time, and fresh appearance that maintains itself for long periods.

**Not Only Today, But Tomorrow Too**

Now all of the things I have just briefly outlined are basic in the professional designer's thinking involving any consumer product. But solving the problem for today without regard for tomorrow is ignoring the dynamics of change and progression that are always with us.

Especially in your particular industry, the future is upon us—and tremendous skill and foresight must be drawn upon for top packaging solutions. Growth and change in the toilet goods field is proceeding at an extraordinarily rapid pace.

Products that were once regarded as luxuries have become everyday necessities to good grooming. Men who once equated neatness with only soap and water are being conditioned by their wives to today's new "appearance facts of life."

Little girls want to feel like big girls with their own special cosmetics—and to most women, owning a single lipstick, eye-shade pencils or a bottle of perfume is as undesirable as owning a single all-purpose dress!

What all this means is that methods of merchandising toilet goods must keep up with the expanding market, or valuable sales ground will be lost. Today's marketable packaging must fit today's new set of circumstances. Once-luxury items are moving into variety stores and supermarkets.

And even the physical aspects of these markets are changing, in their constant efforts to serve the greatest numbers of customers in the shortest possible time, with minimal outlay for sales personnel.

Automation is gaining, out of necessity—dispensing machines able to give change to paper money now being tested are soon to be in use for many products.

This type of "silent selling" will demand still other approaches to packaging and labeling. Simple attractiveness and eye-catching design will not be enough. Your package will have to be truly educational, also—it will have to sell and explain your product often in identical containers against competing brands surrounding it.

And one of today's point-of-sale problems will, if anything, loom even larger—that of rescuing your product from the mediocrity imposed by row upon row of similar items. Here is the area in which your brand meets its greatest challenge—and takes its greatest chance.

**The 'No-Man's Land' of Products**

Here is where the freer thinking and unprejudiced imagination of the professional designer can make its most valuable contribution to your packaging decisions. A good designer knows that jumping on the bandwagon of even the most successful recent competitive design can only result at best in short-term gains.

More, this approach relegates your brand to a no-man's land of undistinguished—and undistinguishable—allied products. Because professional package design is custom made.

The professional designer must be able to cope with the total business picture beyond his creative talents if he is to serve his clients effectively.

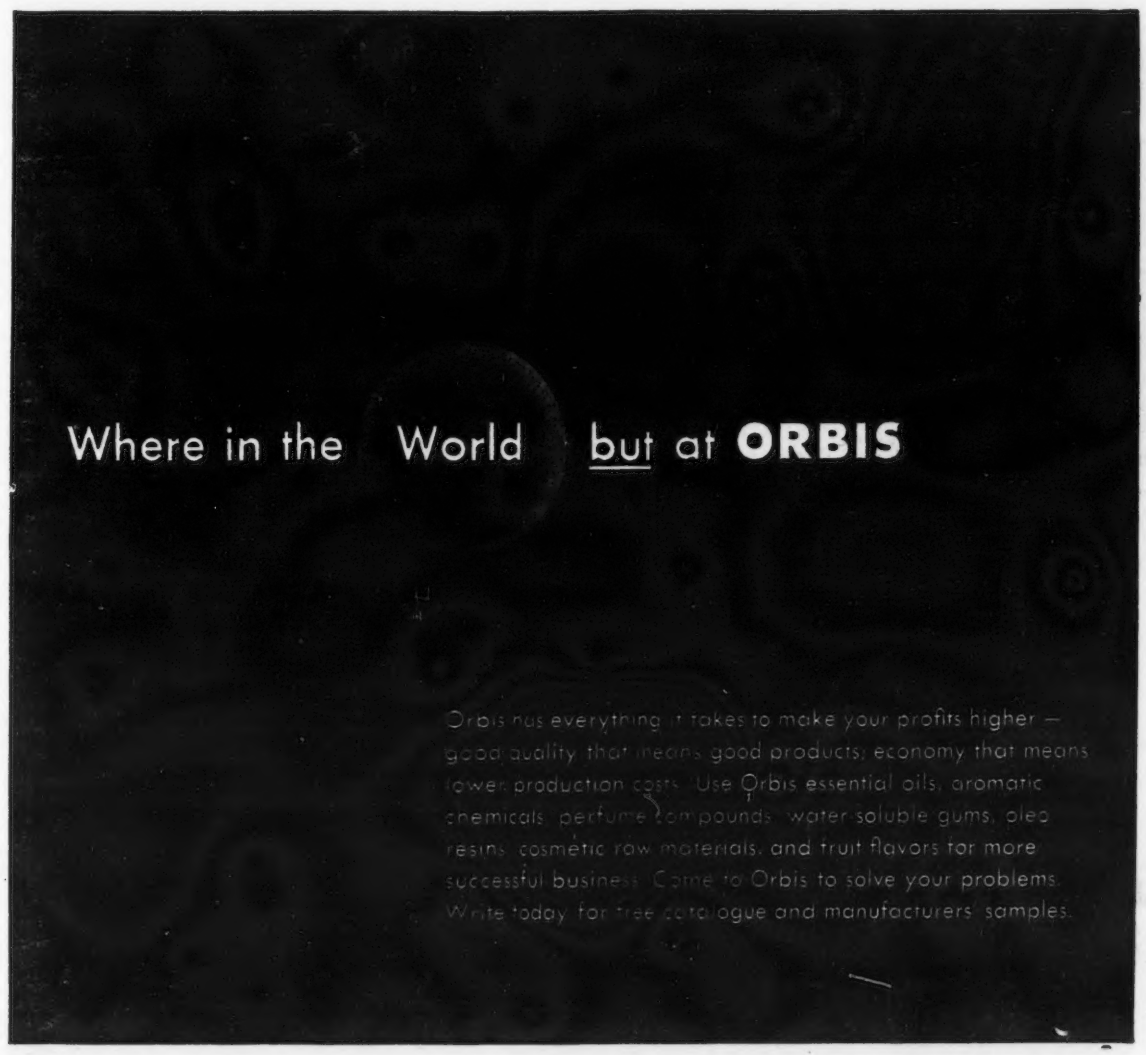
He must be a planner; he must understand the principles of marketing and merchandising; he must be able to work with a budget and must know production and reproduction methods.

He must anticipate need and taste of the end-user and last but not least he is a creative artist. As you can see the industrial designer is a rather complex individual.

* * *

Integrated into the complete company program, good package design can be the springboard for advertising, merchandising and sales promotion campaigns. It can successfully launch a new product, or revive consumer interest in an old one.

And it can attract the plus sales that spell the real profit—by nailing down the impulse buyers and generating a constant stream of new users for your brand. But in order design, specially tailored to meet individual needs, the forward-thinking expert recognizes that someone else's successful package can only indicate a method of approach—it should never be simply duplicated, or translated by means of color changes.

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**TGA Convention Report**

# Cosmetic Marketers Urged to See What's Going on in Retail Stores

Cosmetics marketing people should get out into the retail stores to "learn first hand what is going on." That's the advice John B. Miller, manager of the merchandising department of Cunningham & Walsh, Inc., New York advertising firm, offered up to the Toilet Goods Association. Any firm that relies exclusively on market research findings, consumer testing results, reports from sales personnel and the like is handicapping itself, Mr. Miller declared.

"I would strongly recommend that you and your marketing group get out in the market place regularly and as often as possible," he told the toiletry manufacturers.

"You will be in a much better position to interpret and evaluate all of the consumer and trade intelligence that is furnished to you regularly," he continued.

"You will be in a better position to make sound decisions based on a 'cash register' marketing approach."

Here are key passages from Mr. Miller's address to TGA:

Advertisers and their agencies must be attuned to the changing market place and the people in it. This is a must if advertising dollars are to produce profitable sales benefits.

**The Cunningham & Walsh Program**

Recognizing these facts of marketing life, Jack Cunningham, chairman of the board of Cunningham & Walsh, started "The Man from Cunningham & Walsh" retail program in 1951. For ten years this program has made our people retail-minded. It helps them use a "cash register" marketing approach in doing their jobs that has the consumer in focus and concentrates on the exploitation of "integrated selling ideas."

The public knows this program best through advertising. Ads appear regularly in the consumer and business press like the ad in the current issue of the *New Yorker* showing Nick Pappas, one of our art directors, working in a drug store. More important than the advertising featuring the program is, of course, the program itself.

"The Man from Cunningham & Walsh" program requires that account management executives, art directors, copywriters and other supervisory personnel spend a week each year selling everything from automobiles and poultry feed to lumber, gas, food, drug and many other products and services. The program has five specific aims:

1. Get these people away from their desks so that they actually can see advertising, merchandising and promotion at work in the market place.

2. Give them an opportunity to observe people . . . what they buy, why they buy and how they buy.

3. Give them an insight into the impulse that contributes to each sale.

4. Let them observe the many factors that can influence a retailer to push one brand over another.

5. Give them an on-the-scene consumer reaction to the advertising and selling programs they themselves have developed.

* * *

I know you will find some of the observations made by our people of interest, particularly those related to toiletry products. Let me mention a few of the many we have accumulated recently.

The influence packaging can have on a product's sales movement was pointed up by these observations . . .

"A certain food processor receives inferior display space because retail clerks complain that the manufacturer's outside cartons are difficult to open. The clerks penalize the processor. Thus, sales in this particular store slump despite excellent advertising and promotion support."

**Not Much Space for the Price**

Another observation in the food field. . .

"All too frequently the check-out clerk could not clearly read the price, generally because the package design did not allow space for a clear-cut registration of the price marking stamp. Manufacturers pre-pricing their products or providing ample space for store pricing help retailers keep handling costs down. This could favorably influence sales."

Again in the toiletry field. . .

"Why don't more companies price mark their products, particularly beauty products where a grease pencil marking detracts from the product's appearance."

I could mention many more observations related to packaging. Rather than do this I suggest we look at several other areas.

We are convinced that women are more clothes and beauty conscious than ever before. They are more willing than ever to experiment with new beauty ideas and new products. This conclusion is based on many obesrvations made in countless drug stores. I would like to mention several examples:

"In many stores, women shoppers were observed browsing around the cosmetic display sections examining displays of various make-up items. Frequently the shoppers specifically asked, "What new shades of a Brand X do you have?" or simply, "What's new?"

"Women seem to buy different shades of lipstick and nail polish to suit their costumes, not the time of day. They bring in swatches of clothing to make certain the color they choose is right."

"Teen - agers exchange information

## *Toilet Goods' Sales Up 7 Percent During '60*

Retail sales of perfumes, cosmetics and toilet preparations—excluding toilet soaps—totaled $1,784,000,000 last year, according to the annual estimate of the Toilet Goods Association.

This represents a gain of 7¼ percent over 1959, and says TGA, is rather surprising in view of the fact that business during the latter part of the year (when toiletry sales volume is normally at its peak) fell off.

A bad spell of pre-Christmas weather cut into 1960's business in several heavily-consuming areas of the country. Particularly hard hit were the department stores and specialty shops.

## *TGA Elects New Men To Board of Directors*

Toilet Goods Association has elected four new men to its board of directors.

Named directors for three-year terms were: Joseph A. Danilek, president of Mary Chess, Inc., New York; Richard L. Gelb, president of Clairol, Inc., a unit of Bristol-Myers Company, New York, and Richard J. Livingston, vice-president of Dana Perfumes Corporation, New York.

Elected to a one-year term on the board representing the associate membership of TGA was George E. Davidson, vice-president of Art Decorating Company, North Bergen, N. J.

Re-elected association directors for three years were: Charles W. Hancock, president of Morton Manufacturing Corporation, Lynchburg, Va.; John E. Hardy, vice-president of Daggett & Ramsdell, Inc., New York; J. B. Nethercutt, president of Nethercutt Laboratories, Los Angeles, and Richard Salomon, president of Charles of the Ritz, Inc., New York.

Daniel H. Reheis was re-elected a director of TGA for one year to represent associate members (see picture on page 63).

J. I. Poses of D'Orsay Sales Company, New York, was re-elected a TGA vice-president, as were Oscar Kolin, George L. Schultz and D. H. Williams (see pictures of last three on pages 52, 54 and 56).

William F. Denney, jr., of Frances Denney, Philadelphia, was re-elected secretary of the toiletries association.

## *Warner-Lambert Pair Win the CIBS Award*

The 1961 CIBS (Cosmetic Industry Buyers' & Suppliers' Association) award—made annually to the author or authors of the most meritorious paper delivered before the scientific section of the Toilet Goods Association during the previous year—was presented last week to two chemists from Warner-Lambert Pharamaceutical Company, Morris Plains, N. J.

The co-winners were Dr. Martin M. Rieger, director of cosmetic development for Warner-Lambert, and Dr. Stanley Brechner, senior chemist. The subject of their paper: "Studies on the Adsorption of a Simple Dyestuff by Hair."

about cosmetics. Eye make-up fascinates them and there is much oh-ing and ah-ing over eye shadow colors. They buy mascara when parents aren't looking. I'll buy one if you will, is the attitude, with many giggles."

"A number of women ask for a new shade by name in the case of a well known heavily advertised brand. Most requests of this type occur during or shortly after advertising of the new shade appears."

This observation is related to another on retailer attitudes:

"Druggists are highly critical of some advertisers who build up a demand for a new product prior to making it available at the store level. Customers asking for the new product get irritated when they can't buy it. Retailers get irritated. They feel they lost a sale and might have driven the customer to a competitor's store."

"Retailers feel this practice encourages them to 'overbuy' the new product when it becomes available. Customer requests for the product are made at many stores. As a result the apparent demand is greatly inflated. Druggists also complained that department stores seemed to get the new products before they did."

It has been our experience that reasonable retail distribution of a new product prior to the start of consumer advertising contributes to the advertising's sales effectiveness. We favor the type of operation several retailers commented upon favorably with these words:

"This manufacturer has an ideal operation. On each call his salesman gives us printed material outlining sales features of each product, particularly the new products, suggests ways to sell and display the products and outlines any advertising scheduled. The salesman makes certain that local wholesalers carry a complete assortment of all products so that 'fill-in' quantities of any product can be purchased locally 'as needed'."

I am certain good trade relations help move more merchandise to customers.

Our observations on how drug retailers are reacting to competition from discount outlets and "house-to-house" agents selling toiletries will be of interest to you.

**Competition From the Discounters**

In the case of competition from discount outlets, some druggists are trying to compete by using loss leaders and trade card programs. Some are reacting emotionally by refusing to stock or promote brands sold by the discounters.

The more alert druggists recognize the best way to meet discounter competition is not on a "price basis" but on a "personal service" basis. These druggists make certain they have women clerks on duty. Knowledgable clerks ready, willing and able to give personal advice and assistance to women customers.

In the case of competition from "house-to-house" agents, some druggists again are reacting emotionally. Whenever a customer indicates that a purchase has been made from a "house-to-house" agent, the druggist talks down the quality of the merchandise purchased and the reputation of the manufacturer. This negative approach accomplishes little.

The more alert druggist meets "house-to-house" selling competition the same way he meets competition from discounters. He stresses "personal service."


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# Essential Oils, Aromatics

Both lemon and lemongrass are in the news. Lemon from California is becoming more readily available on spot as the price advances. Most dealers are quoting prices under $2 per pound but they have no stocks. A few dealers are quoting prices nearer $3 and they claim they have good supplies of oil. Lemongrass has advanced 15 cents per pound on spot because supplies both here and at source are limited. The crop is said to be a good one but it is late. Hence the tightening market situation. Production of citronella in Ceylon is said to be slowed down considerably because the Sinhalese are celebrating their New Year. Cedarwood is very firm; many dealers have withdrawn from the market. Rosemary continues firm.

Essential oil men who are interested in the food additives question might be interested in attending the technical symposium of the 52nd annual convention of the Flavoring Extract Manufacturers' Association of the United States on Tuesday (May 16) at 2:30 p.m. at the Savoy-Hilton Hotel, New York.

The following topics are to be discussed: Report of Food Additives Committee, Dr. Richard L. Hall; Discussion of the Food Additive Problems, Dr. Bernard L. Oser; Criteria for Evaluating Safety of Flavor Chemicals, Dr. Maurice H. Seevers; Common or Usual Name—Its Meaning, Vincent A. Kleinfeld; Labeling for Household Extract, Howard D. Smith; Labeling for the Bulk Extracts Manufacturers, Dr. J. H. McGlumphy; Certified Color Situation, Hunt P. Wilson.

The following statistics about candy production may interest essential oil companies that supply this industry.

In 1960, over three billion pounds of candy was produced in the United States. This was $1.2 billion in manufacturers' sales.

This candy was made up of 2,000 varieties which include hard candy, toffees and caramels, creams, fondants and fudge, jellies and gums, marshmallows, nougats, licorice, chocolates.

Candy that was imported into the US last year amounted to 51,510,000 pounds. More than half of this came from the United Kingdom. Second largest supplier was The Netherlands; third was Belgium.

Export of candy from the US amounted to 12,350,000 pounds. Most of this went to Canada and Mexico.

### Price Trends

**Advanced**
Lemongrass, 15c. per lb.

**Reduced**
None

**Comparative Price Indexes**
(100=1949 average)

| Last week | Prev. week | Last month | May 13, 1960 |
|---|---|---|---|
| 143.81 | 143.80 | 143.98 | 145.50 |

*For Current Prices see Page 10*

## Essential Oils

**Almond**—The natural bitter material is said to be moving in good quantities. Prices range from $2.75 all the way up to $3.45 per pound.

The NF material is selling for $3 per pound and the sweet USP ranges between 60c. per pound and 95c. per pound.

**Bay**—No further advances in price have been noted. Both the 50-55 and the 55-60 percent Puerto Rican material continue to be listed at $4 per pound. The 50-55 percent West Indian material continues to be listed at $4.25 per pound.

**Cananga**—A reader recently inquired about Macassar oil.

Upon investigation it was learned that this oil is said to be a blend of coconut oil and cananga oil. It is said to be used as a hair restorer.

It is estimated that only some 10 to 20 tons of cananga are produced a year. Much more than is "consumed" so it is assumed that a good deal of adulteration is done to the oil.

It used to be thought that both cananga and ylang ylang oils came from the same trees. During the 1930's a man named Koolhaas planted the seeds of the ylang ylang tree in Java. He had imported these from the Philippine Islands.

When these trees were fully grown, he compared them with the cananga. He observed that the ylang ylang grew only to about half the size of the cananga tree. He also observed that the leaves of the ylang ylang tree were smaller than the leaves of the cananga tree and that the oils distilled from the two trees were quite different.

He said that ylang ylang oil possessed a much finer odor than the cananga, even when ylang ylang was grown on Java soil.

**Cedarwood**—The low of the range remains at $1 but this price does not mean very much, according to a number of the essential oil dealers in the New York area.

Many of them have no stocks and some who have material say they can fill only orders of limited size.

**Citronella**—Reports from source are that there are very few offerings of Ceylon material. The carryover is said to be small.

One reason for the slow-down in production, it has been reported, is that the Sinhalese, who tend the fields of citronella in Ceylon, are celebrating their New Year.

Unlike the celebrations in this country where it takes but a few hours to ring out the old year, it takes the Sinhalese a few weeks.

Industry estimates are that production of oil from citronella in Ceylon has ranged between 500 and 800 metric tons for over half a century.

The market for material from Formosa is said to be steady.

**Costus**—Several investigators have examined costus root oil. In a British essential oil journal it is published that chromatography on alumina plus several other techniques yielded the following fractions of the oil: dehydrocostus lactone, costunolide, costol, B-sitosterol, stigmasterol, betulin, a solid alcohol m.p. 190 degrees, some guaianolides and a few unidentified oxygenated constituents.

**Laurel Leaf**—Prices continue to range between $9.75 and $12.50 per pound.

**Lemon**—Reasonable quantities of oil are said to be available on spot for prices ranging between $2.35 and $2.65 per pound. A few quotations are lower, but most dealers who quote around the $2 level also mention that they have no stocks.

For some weeks, oil from the major proportion of the west coast growers has been listed at prices ranging between $1.80 and $1.95 per pound. Supplies of oil at these prices were said to be limited and now these limited supplies seem to have been depleted.

It was heard about the trade that unlimited supplies of oil could probably be bought for slightly under $3 per pound. One dealer said, "The closer the price gets to $3 the more oil will become available."

**Lemongrass**—The crop is reported to be a good one but because it is late, prices have advanced at source. Carry over is said to be quite small.

Spot price has risen from $2.45 per pound to $2.60 per pound but supplies in New York are said to be limited. Some listings go as high as $2.80 per pound and some dealers report they have no stocks.

**Lime**—It is reported that a good deal of lime oil is being processed in Mexico this month.

Spot prices are as follows: Mexican distilled ranges between $5.50 and $6 per pound; West Indian distilled ranges between $5.50 and $6 per pound, and West Indian expressed ranges between $6.50 and $8 per pound.

**Rosemary**—The market continues firm, according to reports from dealers in the New York area.

Prices range from 90c. per pound up to $1.20 per pound. The technical grade is quoted at 80c. per pound.

According to various technical and agri-

### Imports Detained at N. Y.

**Week Ended April 21, 1961**

Black pepper, 140 bags.
Caraway seeds, 4 lots, 420 bags.
Cassia, 6 lots, 2,115 bales.
Celery seed, 3 lots, 523 bags.
Fennel seed, 80 bags.
Ginger, 245 cases.
Mace, 14 bags.
Nutmegs, 2 lots, 200 bags.

# Essential Oils

cultural reports, distillation of the oil takes place usually between March and July. But if demand is particularly good, the oil is often distilled in the winter months prior to the regular producing season in the province of Murcia in Spain.

The oil is generally produced by peasants who operate their own stills. These same peasants also farm, and the distillation of rosemary oil is a side activity.

From the plant material, the yield of oil is approximately one kilogram per 25 pounds during the summer. During the winter, however, the yield is lower.

## Aromatic Chemicals

**Vanillin**—During the month of March a total of 31,205 pounds of vanillin was imported into the US.

This material was valued at $100,862 and dutied at $20,099.

Canada was the largest supplier, sending in 29,000 pounds which was valued at 86,130 and dutied at $17,234.

Switzerland supplied the remainder, $2,205 pounds which was valued at $14,732 and dutied at $2,865.

This information comes from the Foreign Trade & Economics Operations Division of the Bureau of Census, US Department of Commerce.

## Seeds and Spices

**Canaryseed**—Moroccan material is firm. From its previous price, $10.25 per pound, it has gone up to $10.35 per pound.

**Celery**—French material has dropped from its previous 36 cents per pound to 34 cents per pound.

**Ginger**—Still on the rise, Cochin material has gone up from its previous 20 cents per pound to 21 cents per pound. Three weeks ago it was selling for 18 cents per pound.

**Pepper**—Both Malabar and Lampong black dropped in price last week. They both came down from 47 cents per pound to 45½ cents per pound.

Muntok white came down slightly. From its previous price, 55½ cents per pound, it dropped to an even 55 cents per pound.

**Vanilla Beans**—Once again the market is reported to be steady and unchanged. Bourbon material continues at $6.95 to $7.10 per pound; Mexican cut at $7.10 to $7.40 per pound, and Mexican whole at $7.50 to $8.50 per pound.

As part of the 52nd annual convention of the Flavoring Extract Manufacturers' Association of the United States, there will be a technical symposium on vanilla research presided over by Dr. David Jorysch. It will be held tomorrow (May 16) at 9:30 a.m. in the Gold Room of the Savoy-Hilton Hotel, New York.

The following reports will be presented: Report of Research on Vanilla Methods, Dr. J. Fitelson; Previous AOAC Methods, Willis Steinitz; Paper Chromatography, One and Two Dimensional, Dr. J. H. McGlumphy; Organic Acids of Vanilla, Ray Way; Amino Acids, Dr. William Stahl; Detection of Foreign Aromatics and Caramel Color, Dr. James Ingle; Report of Scientific Research Committee, Dr. Jorysch; Report of Vanilla Agronomy Committee, Robert Rosenbaum.

## Essential Oil Briefs

**COLGATE OFFERS ODORLESS DEODORANT:** The Colgate-Palmolive Company is now offering for institutional use, an air deodorant which destroys offensive odors yet leaves no odor of its own. The product called Florient Air Deodorant also reduces the bacteria and virus count in the air. This product is recommended especially for use in hospitals and rest homes.

**PERFUMERS TO MEET:** Two films will be shown at the Wadnesday (May 17) meeting of the American Society of Perfumers, Inc., to be held at the Advertising Club, 35th Street and Park Avenue, New York, with cocktails at 6 p.m. and dinner at 7 p.m.

"Parfums de France," loaned to the society by the Ministry of External Commerce of France and the Association of French Perfumers, tells about the flower growing areas and the various processes of manufacture of essential oils.

"Challenge-Nature's Chemistry," produced by Firmenich & Co., shows the isolation, identification and synthetic reproduction of flower oil and flavor components.

## 'Alathon' With Carbon Black Now Available from duPont

A new black "Alathon" polyethylene resin for extrusion coating has been introduced commercially by the polyolefins division of E. I. duPont de Nemours & Co. Known as "Alathon 3425 BK 22," the resin is designed for use where black coatings are required.

The product compounds regular "Alathon 3425" with 2½ percent carbon black to provide opacity and improved weatherability, duPont reports. The resin has a base density of 0.923 and a melt index of 3.7. Carbon is dispersed with the same high degree of uniformity as in black "Alathon" resins developed for the pipe industry, the company says.

The new resin is recommended for use in paper-polyethylene combinations in the construction and agricultural fields where durability, moisture barrier properties, and weatherability are prime requirements.

## *Grace in Smog Battle*

*—Continued from page 7*

Grace has been testing catalysts at its Clarksville, Md., research center for the past two years.

J. Peter Grace, president, told stockholders last week that the company would soon apply to California authorities for official testing of the device.

Speaking at the company's annual meeting in Clarksville, Mr. Grace cautioned stockholders that before the catalyst system becomes available to the public, it must be approved by the California Motor Vehicle Pollution Control Board and receive the acceptance of the automobile manufacturers.

Davison Chemical Division, a leading producer of synthetic catalysts used for controlling reaction time in chemicals and plastics production and in petroleum refining, figured prominently in the research effort, Mr. Grace indicated.

"Not only do we believe our catalyst meets current test specifications," he said, "but the Grace system will operate successfully on gasolines containing lead and other conventional additives."

## *Rayon: 'Clear Road Ahead'*

*—Continued from page 4*

cent of the Rayonier's world business is in this same yarn.

Mr. Erickson says that rayon has a strong foothold in the world yarn market and that he doesn't expect nylon to become a severe threat for another five or six years.

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# Drugs, Fine Chemicals

Price activity is at a minimum, producers feeling that advances will curtail sales, reductions cut into already slim profits. Sole action within the past month, in what a producer characterized as a delayed reaction to higher raw material (stearic acid) costs, was an increase in butyl stearate; May 1, the technical grade was advanced 1½ cents a pound across the board the CP grade, 1¼ cents a pound. A month earlier, saccharin, caffeine, sulfanilamide and piperazine salts went higher.

The 10 cents a pound increase in saccharin prices, in light of continual imports from Japan and the Netherlands, came as a bit of a surprise. But a development at that time that has only recently been reported throws some light on the change. This is the halting of sodium and calcium cyclamates production by a leading chemical firm.

Some of the glamour that surrounded the development and market introduction of the cyclamates, which are non-caloric sweeteners and saccharin competitors, apparently has been dissipated by a slower than anticipated growth rate.

March imports of drugs and fine chemicals were generally higher than February levels. Inshipments of ascorbic acid and thiamine increased but no pyridoxine was brought in, an obvious boon to hard-pressed domestic manufacturers.

Notable in just-issued Commerce department trade statistics was the large increase in tartaric acid imports during March and the replacement of Chile by Japan as the largest shipper of crude iodine to the US market.

Relabeling of dihydrostreptomycin containers, along the lines proposed by the Food & Drug Administration last fall, is now mandatory. The action was expected by the trade and has created no particular stir in the DHS market.

**Ascorbic Acid**—March imports of ascorbic acid totaled 21,561 pounds—up from 15,654 in February—and were valued at $67,980 and dutied at $7,138. On the shippers' roster, as usual, were: Japan, 11,199 pounds, valued at $40,820 and dutied at $4,286; and Denmark, 10,362 pounds, valued at $27,160 and dutied at $2,852.

The same month, thiamine imports were 1,145 pounds, valued at $8,936 and dutied at $939; Japan was the only supplier.

No $B_{12}$ was imported in March, according to the Census Bureau trade statistics issued last week. Perhaps prices are too depressed here even for the importers.

Requirements for vitamins are generally good and except for $B_1$ and $B_{12}$, prices are reasonably stable. Competition, nonetheless, is keen across the board.

**Butyl Stearate**—Prices for technical and CP butyl stearate were advanced May 1. The boost reportedly reflects higher raw material costs.

Advanced 1¼c. a pound, CP butyl stearate is now quoted at 26½c. a pound in tankcar or tank truck quantities; at 28½c. a pound in a carload of 75 drums; at 29c. a pound for less than a carload (10 drum minimum); and at 29½c. a pound for 1 to 9 drums.

The technical grade, advanced 1½c. a pound, is now listed at 23¾c. a pound in tank cars; at 25¾c. a pound for a carload of 75 drums; at 26¼c. a pound for less than a carload (10 drum minimum) and at 26¾c. a pound for 1 to 9 drums.

**Cyclamates**—Great things were at one time expected of calcium and sodium cyclamates, non-caloric sweeteners now found in many restaurants next to the sugar and the saccharin. But apparently one firm has reevaluated the potential of these chemicals for it recently ceased production. Its action may have occasioned the advance in saccharin prices that was effected, on contract, by a domestic supplier on April 1.

### Price Trends

**Advanced**
None

**Reduced**
None

**Comparative Price Indexes**
(100=1949 average)

| Last week | Prev. week | Last month | May 13, 1960 |
|---|---|---|---|
| 59.29 | 59.29 | 59.29 | 60.36 |

*For Current Prices see page 10*

**Dihydrostreptomycin**—Food & Drug Administration has finalized rulings on the labeling of dihydrostreptomycin that were proposed last September. The agency's action was expected and caused no stir in the trade.

Under the new requirements, outside wrappers or containers and the immediate containers of DHS must bear the statement: "Warning: For use only in patients who cannot tolerate streptomycin."

In the case of the dihydrostreptomycin-streptomycin mixtures, the statement must read: "Warning: For use only in the treatment of tuberculosis in patients who cannot tolerate full dose of streptomycin."

**Iodine**—If Commerce department statistics are accurate, Japan was the major supplier of crude iodine to the US in March, usurping the position traditionally held by Chile.

The figures show that Japan shipped 95,343 pounds, valued at $92,806, while Chile accounted for 82,320 pounds, valued at $78,460. Total: 177,663 pounds, valued at $171,266.

Spot price on Japanese iodine is believed to be slightly below the $1.10 a pound quoted by both a domestic producer of crude and Chilean iodine interests here.

Whether the lower price accounts for the rise in Japanese imports is, of course, not known. Speculation has been that Jap iodine is going to a "non-consuming end-use" and that the rise in shipments to the US market, which has been a fairly steady affair since last fall, is a reflection of this.

**Menthol**—Spot market is little changed. Inquiry, trade people say, is moderate, stocks adequate. Prices are relatively stable at the lower levels established about six weeks ago.

Imports of natural menthol, at 126,950 pounds in February, dropped to 105,282 pounds in March. Value of combined shipments was $687,120 and the duty, $36,849. Sources were: Brazil 71,224 pounds, valued at $427,844 and dutied at $24,929; Taiwan 13,980 pounds, valued at $101,782 and dutied at $4,893; Japan 11,700 pounds, valued at $98,555 and dutied at $4,095; and Spain 8,378 pounds, valued at $58,939 and dutied at $2,932.

Synthetic menthol imports in March

### Drugs and Fine Chemical Imports: March

Imports of selected drugs and fine chemicals for February and March 1961, as reported by the Bureau of Census, were as follows:

| | | March | February |
|---|---|---|---|
| Ascorbic acid | lbs. | 21,561 | 15,654 |
| Caffeine | lbs. | 178,649 | 96,138 |
| Camphor, crude | lbs. | 0 | 0 |
| Refined | lbs. | 31,900 | 24,200 |
| Synthetic | lbs. | 94,100 | 198,000 |
| Iodine, crude | lbs. | 177,663 | 249,809 |
| Menthol: | | | |
| Natural | lbs. | 105,282 | 126,950 |
| Synthetic | lbs. | 17,900 | 20,470 |
| Pyridoxine | lbs. | 0 | 220 |
| Quinidine and salts | ozs. | 107,640 | 44,153 |
| Saccharin | lbs. | 25,617 | 22,290 |
| Sodium alginate | lbs. | 23,800 | 9,325 |
| Tartaric acid | lbs. | 661,789 | 365,821 |
| Thiamine | lbs. | 1,145 | 904 |
| Theobromine | lbs. | 2,600 | 5,100 |
| Vitamins and vitasterols, n.e.c. | lbs. | 80,752 | 20,153 |

# Drugs, Fine Chemicals

totaled 17,900 pounds and were valued at $92,397 and dutied at $6,265, according to the Commerce department. France was the sole shipper.

**Quinine**—General Services Administration has rejected all bids on the 1,130,542 ounces of powdered quinine hydrochloride that it has been trying to unload for lo these many years.

The agency said that none of the four tenders represented a fair return to the government.

GSA is issuing new bid-invitations and plans to open its return mail by the end of May.

Imports of quinidine (including the salts) in March amounted to 107,640 ounces, valued at $76,894. Shippers were: The Netherlands, 58,410 ounces, valued at $41,891; West Germany, 43,582 ounces, valued at $30,819; United Kingdom, 5,648 ounces, valued at $4,184.

March imports of salts and alkaloids derived from cinchona bark, a Census bureau basket category that includes quinine sulfate, totaled 108,804 ounces, valued at $51,218. Suppliers were: The Netherlands, 59,222 ounces, valued at $30,577; West Germany, 46,082 ounces, valued at $19,658; United Kingdom, 3,500 ounces, valued at $983.

# Botanicals

First offerings of this season's domestic botanicals are expected in about two weeks. How the additional supply will affect prices is still not known, however. Higher labor costs, a trade member says, may rule out substantial reductions in some of the currently high-priced items.

Imports detained by the Food & Drug Administration at the Port of New York during the two week period ended April 21 included 5 lots (204 bags) of gum karaya, 14 lots (539 cases, 6 drums, 121 chests) of papain, and 256 bales of stramonium leaves.

**Aloe**—Prices have been relatively stable since the beginning of the year. Quoted is this schedule: Cape aloes, 35c. to 40c. a pound with the powder 60c. to 65c.; Curacao aloes, 75c. a pound, the powder 85c. a pound.

**Cinchona Bark**—Quote for the NF red is 25c. a pound. The yellow bark is listed at 35c. to 40c. a pound. Both schedules have been long established.

**Gum Arabic**—Gum arabic imports for the first eleven months of 1960 were down 14 percent from the 1959 period, Business & Defense Services Administration reports. Furthermore, the agency says, arrivals in December probably did not reach the 3.8 million pounds needed to make calendar year 1960 imports equal to those of '59, which were, however, 14 percent above the normal year 1958.

Imports exceeded 3 million pounds in only two months last year—June and September.

Spot market for arabic is said to be very firm at established prices.

**Gum Karaya**—January-November imports of gum karaya last year were 9 percent higher than those in the comparable period of 1959. The 11-month total of 7.4 million pounds is particularly significant, BDSA reports, inasmuch as it exceeds the 7.1 million pounds imported in the calendar year 1959.

**Gum Tragacanth**—Imports of gum tragacanth for the first eleven months of 1960 were 35 percent above those in the comparable period the year before, greater, in fact, than imports for calendar years 1959 and 1958, which were approximately equal.

## Drug, Fine Chemical Briefs

**ANTI-DEPRESSANT DRUG:** "Elavil" (amitriptyline), a new anti-depressant drug, is now available to doctors from Merck Sharp & Dohme, a division of Merck & Co., Rahway, N. J. Having a tranquilizing component, the drug may be appropriately prescribed in cases where anxiety, agitation, and tension accompany the depression, the firm says.

**CONTROLLING SKIN DISEASE:** Injecting the corticosteroid drug "Aristocort" triamcinolone directly into lesions of stubborn skin diseases holds promise of more effective control of these disorders, according to results of clinical investigations reported in the medical literature. "Aristocort" is a product of American Cyanamid Company's Lederle Laboratories Division, Pearl River, N.Y.

**EXPERIMENTAL CHEMICALS:** City Chemical Corporation, New York, is currently offering experimental quantities of cadmium oxalate, cupric glycolate, sodium mandelate and stannous pyrophosphate. Facilities are available for the production of commercial lots of these chemicals, should they be required, the firm reports.

## *Chemical Leaders Like*

*—Continued from page 5*

vantages in the public interest rather than require the rates of one mode to serve as an umbrella over the rates of other modes.

"The proposed bill would require more regulation and we subscribe wholeheartedly to the belief that less regulation, not more, and more competitive freedom, not less, is desirable."

Mr. Hull pointed out that shippers in the chemical industry use all modes of transportation—rail, motor carriers and water—and are interested in preserving a sound basis for regulation in rate making.


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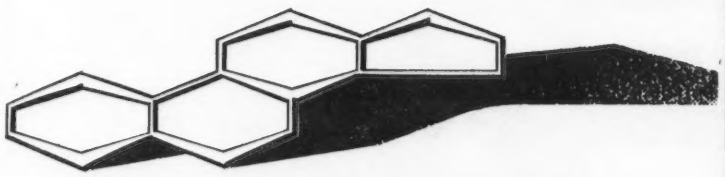

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## 'Hydeal' Facility in Texas Is Started Up by Suntide

Suntide Refining Company, a subsidiary of Sunray Mid-Continent Oil Company, has started operations of a "Hydeal" unit in Corpus Christi, Tex. The unit is producing 750 barrels per stream day of benzene.

The "Hydeal" facility, designed and licensed by Universal Oil Products Company is integrated with Suntide's "Platforming" and "Udex" units.

Toluene is separated by the "Udex" facility from aromatics produced by the "Platforming" operation. Toluene is then hydrodealkylated in the "Hydeal" unit, using hydrogen produced by the platformer.

Another Sunray Mid-Continent subsidiary, DX Sunray, is building a 1,000-barrel-a-day "Hydeal" unit at its Tulsa, Okla., refinery for operation in conjunction with a "Udex" unit completed last December.

## *DuPont's New Quest*

*—Continued from page 3*

samples is available, and larger quantities are being sold at $3.50 per pound. The price is expected to be reduced substantially as production facilities and commercial use expands.

DuPont has been researching the product since 1951, and has geared the development plant at Belle to a possible 100,000 pounds a year capacity.

To illustrate its versatility and indicate why they think the product should hit the big-time markets, duPont chemists point out that in one form "Baymal" is hard enough to machine steel or to cut glass, while in another form it can be used to improve the smoothness of skin lotion.

Chemically, "Baymal" is a white, free-flowing powder consisting of clusters of minute fibrils of boehmite (ALOOH) alumina.

**Reason for Diversity of End-Uses**

The product owes its wide spectrum of potential applications to the following combination of properties:

(1) It is a water dispersible powder. "Baymal" disperses and swells up in water to form a stable colloid.

(2) It consists of fibrillar particles. When a colloidal dispersion of "Baymal" is dried from water onto a surface, tne small fibrils lie flat and interlace to form a film. Very few inorganic materials and no other aluminas form films in this manner. Such films remain stable at high temperatures.

(3) Particles of "Baymal" are extremely small and have a high surface area. If the fibrils in one pound of "Baymol" were laid end to end, they would make twenty-five rounds trips to the sun. The surface area of these same fibrils would cover thirty acres.

(4) When dispersed in water fibrils of "Baymal" colloidal alumina assume a positive charge. Because of this positive charge, "Baymal" can fix itself to negative surfaces such as glass, paper, clay, etc., completely changing their surface charge from negative to positive.

(5) "Baymal" is hydrophilic and organophilic. Because it is wet both by water and certain organic liquids, "Baymal" can act as an emulsifier and a thickening, dispersing, and suspending agent in both water and water-alcohol systems.

(6) "Baymal" has a low toxicity. DuPont is applying to Food & Drug Administration currently to obtain clearance for the use of "Baymal" in cosmetics and pharmaceuticals.


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# Coating Materials

Alcohol-based plasticizers were reduced last week 2 cents a pound by a leading producer, following similar price cuts on the oxo alcohols. Decreases of up to 4 cents were posted on the adipates. Other producers contacted last week, indicated that they would realign their schedules to remain competitive. The alcohol price cuts amounted to three to four cents a pound. The reduction in the listings for the phthalates was not unexpected. But the talk in the trade earlier in the week indicated that the esters would hold at least until the summer months, when freeing in the supplies of naphthalene could cause a resulting easing all along the line.

With steel operating at 70 percent of capacity, and with more petroleum naphthalene expected to come on stream in the next few months, sources reported that ester listings would bow to increased consumer pressure.

The possibility of further price cuts on phthalate esters then, has not been removed by the reductions allowed by the lower alcohol price, some in the trade believe.

Other price changes going into effect this week are the three to seven cents per pound increases announced a few weeks ago on the cadmium pigments. Cadmium concentrated pigments and lithopones are being quoted at their new prices as of today (May 15).

Paint sales in 1960 hit $1,763 billion, reports the Bureau of the Census in its preliminary report on production and sales of paints and paint products in 1960. Last year's sales edged out the record $1.727 billion reported for 1959. However, Census in reporting its preliminary figures, estimates a standard error of 5 percent as a result of projections based on sampling.

### Price Trends

**Advanced**

Casein, Argentine, ½c. per lb.

**Reduced**

di-Decyl phthalate, 2c. per lb.
di-Ethyhexyl adipate, 4c. per lb.
di-2-Ethylhexyl phthalate, 2c. per lb.

**Comparative Price Indexes**

(100=1949 average)

| Last week | Prev. week | Last month | May 13, 1960 |
|---|---|---|---|
| 104.58 | 104.57 | 104.55 | 103.14 |

*For Current Prices see Page 10*

## Prime Pigments

**Antimony Oxide**—Majority of business being done at the 30c. a pound level, sources report. Demand for the oxide is reported to at good levels.

**Cadmium Pigments**—Prices went up 3c. to 7c. a pound today (May 15) but OPD's price pages will not reflect the increase until the issue of the twenty-third. Demand last week was reported confined to consumers stocking up on pre-price increase material.

**Lead Pigments**—The market for the lead pigments continues at a routine level. Demand from paint manufacturers is reported to be somewhat improved.

Shipments for 1960 totaled 22,327 short tons, compared with 21,999 short tons produced. For the first two months of 1961, average shipments were 1,624 short tons, compared with average production of 1,751 short tons.

Shipments averaged about the same as in the corresponding period of 1960, but production was down from 1,825 short tons, average, in 1960, to 1,751 short tons this year in the first two months.

Stocks on hand at the end of February were reported at 3,472 short tons, was less than the same period last year, when 3,878 short tons were on hand.

**Titanium Dioxide**—Paper coatings taking good part of titanium dioxide output, with some increase in paint formulation uses noted at this time. Listings are unchanged.

**Zinc Oxide**—Market routine, prices stable, sources report.

## Lacquer Materials

**Nitrocellulose**—Listings will be boosted 1c. a pound June 1, for the first time in three years. Sales are said to be moving to furniture coating outlets in good quantities with the improvement in nitrocellulose pacing the general improvement taking place in the economy.

**Plasticizers**—The listings that have been lowered by the decline in alcohol listings are as follows: di-2-ethylhexyl isophthalate, 26c. per pound; tridecyl phthalate, 28c. a pound; di-2-ethylhexyl phthalate, 24½c. a pound; di-decyl phthalate, 25c. a pound; ethylhexyl decyl phthalate, 25c. a pound; butyl ethylhexyl phthalate, 24c. a pound. The preceding prices are reported on the basis of one producer's announcement and are for tankcar shipments, fregiht allowed.

Coming by way of the alcohol route, the softening of the phthalate esters took many in the trade by surprise. There was talk earlier in the week that listings might be cut as the supply position of the ester raw materials improved. Sources had in mind the anticipated freeing of supplies of naphthalene and phthalic anhydride.

With steel output on the rise (already at 70 percent of capacity) and petroleum naphthalene about to be available to even greater quantities, some sources felt that the esters would fail to hold up under consumer pressure to reduce prices.

Movement to industrial sources is reported to be a good volume. Some decrease in demand is noted in wire and cable covering operations, but tile manufacturing is said to be showing signs of improvement. Generally sales of the plasticizers is reported to be on the plus side, sources observe.

The prospects for the summer months does not indicate a general firming in the phthalate ester demand. Some feel that the phthalates may yet react to a freeing in supplies of naphthalene. Much will depend however, on the supply/demand balance reached in the next few months. At the least it can be said that the days of naphthalene inspired shortage of the esters are passed.

## Miscellaneous

**Casein**—Listings for imported casein continued to rise. Argentine casein was up to 18½c. to 18¾c. a pound, for shipment. An earlier price had pegged Argentine material at about 18c, nominal. While Polish casein offers were limited, latest price was in the range of 18c to 18¼c. a pound.

Australian casein was also on the up side, with that price moving in the range of 19½c. for nearby spot, and 20c a pound for shipment.

Argentine casein is reported to the be very active in Europe, with the Germans reported to be paying premiums for the Argentine material. French casein, absent from the market during the recent firming in the market, is still without a firm price tag since that country's agricultural minister has not adopted a subsidy for his casein. Some reports indicate that it might be offered on the basis of shipment at 16½c. a pound but this price has not been confirmed.

## Coating Materials Briefs

**GLIDDEN NAMES TALL OIL AGENT:** L. V. Lomas Chemical Company, Downsview, Ontario, has been appointed distributor of tall oil products by the Glidden Company, Cleveland, Ohio. Distribution area covers the province of Ontario and Quebec with provisions being made

*—Continued on page 78*

### Paint, Varnish and Lacquer: 1960[1]

| | Factory Shipments | | Production in Gallons | |
|---|---|---|---|---|
| | 1960 | 1959 | 1960 | 1959 |
| Industrial Finishes, total.... | $740,000,000 | $719,600,000 | 319,400,000 | 304,300,000 |
| Paint and Varnish..... | 537,900,000 | 529,300,000 | 235,700,000 | 225,700,000 |
| Lacquer ..... | 202,100,000 | 190,300,000 | 83,700,000 | 78,600,000 |
| Trade Sales Products ..... | 1,023,600,000 | 1,007,800,000 | 343,700,000 | 346,000,000 |
| Total ..... | 1,763,600,000 | 1,727,400,000 | 663,100,000 | 650,300,000 |

[1]As estimated by the Bureau of the Census, with a standard error of sampling of 5 percent.


CELLULOSE ACETATE / CELLULOSE ACETATE BUTYRATE /

# Petroleum Derivatives

Availability of export benzene is increasing. Tankers bearing 5.3 million gallons left US ports in March according to Tariff Commission figures, up 1.2 million gallons from February. Along with an increase in volume has come a drop in price. Export benzene in March averaged 37.5 cents a gallon, down from an average of 40.1 cents a gallon in February. Export-import gap is widening, too. Net US exports, after import deductions, amounted to 6.9 million gallons for the first quarter 1961. In the same period last year the situation was almost diametrically opposite with the US then a net importer of 6.4 million gallons.

Five countries have taken the bulk of export material—The Netherlands, 2.6 million gallons; Italy, 2.3 million gallons; Mexico, 2 million gallons; West Germany, 1.8 million gallons, and Brazil, 1.1 million gallons.

Major benzene seller to the US this year has been USSR which has accounted for nearly 3 million gallons of the 4.3 million total.

Further news in benzene was made last week with the announcement by a major refiner that a long-awaited "Hydeal" plant had gone on stream at Corpus Christi. Capable of producing 750 barrels of benzene per stream day, the new plant will soon be joined by another "Hydeal" unit, project of the refiner's subsidiary, now building at Tulsa. The Oklahoma plant's capacity will be 25 percent higher at 1,000 barrels per stream day of benzene.

Current market conditions include increased availability of benzene; toluene demand on the rise due to farm activity and also high motor fuel consumption; xylene's ortho fraction still in good demand although naphthalene shortage is easing, and waxes and mineral oils in normal market postures.

### Price Trends

**Advanced**
None

**Reduced**
None

**Comparative Price Indexes**
(100=1949 average)

| Last week | Prev. week | Last month | May 13, 1960 |
|---|---|---|---|
| 104.10 | 104.11 | 103.74 | 103.82 |

*For Current Prices see page 10*

## Aromatic Solvents

**Benzene**—Tight supply, long the dominant factor for this solvent, has given way to a supply situation termed as adequate by most sources.

In heavy-volume consuming areas, such as the Gulf, contract needs are being filled satisfactorily according to reports.

Farther north the situation is described as less favorable but still much improved over conditions of last year or even earlier this year.

In view of rapidly expanding capacity and increasing supply, price is a question in everybody's mind. While most observers hesitate to speculate openly about a price drop, there does appear to be strong opinion in the trade that the 34c. a gallon price will not last out the year.

Benzene exports rose again in March. A total of 5,252,225 gallons valued at $1,965,122 left US ports as against 4.1 million gallons in February.

Average value per gallon of March shipments was 37.5c. although larger volume shipments tended to lower prices.

Destination, volume, value, Tariff Commission exit port designation and average value per gallon follows:

Italy—1,842,346 gallons valued at $653,809 left Galveston and Port Arthur areas. Average price per gallon—35.4c.

Mexico—956,590 gallons valued at $403,866 left from Laredo district. Average price per gallon—42.2c.

W. Germany—943,180 gallons valued at $320,681 left from Galveston. Average price per gallon—34c.

The Netherlands—614,928 gallons valued at $255,179 left from Port Arthur and Galveston. Average price per gallon —41.5c.

Canada—524,412 gallons valued at $204,741 left from Buffalo and Detroit. Average price per gallon—39.1c.

Brazil—359,739 gallons valued at $122,311 left from Galveston. Average price per gallon—33.9c.

Nominal shipments were also made to Greece and New Zealand.

Benzene imports in March climbed to 2,959,490 gallons. All material originated in USSR and was the first Soviet shipment recorded this year. Port of entry was Galveston. Tariff Commission value was placed at $728,410, or 24.6c. a gallon.

**Toluene**—Market conditions are relatively unchanged from last reports. Material is moving in heavy volume into agricultural solvents as the farm season begins to move northward from the early-season southern and southwestern areas.

Advent of warm weather also means a boost in gasoline consumption. Consequently more toluene is moving into fuel streams.

Export market in the first quarter was down considerably from the same period last year—10.8 million gallons as against 15.3 million gallons last year.

Exports of toluene in March to all countries amounted to 2,991,199 gallons valued at $569,617, or an average price of 19c. a gallon.

Imports totaled only 64,660 gallons valued at $12,618, or an average of 19.5c. a gallon.

## Waxes

Microcrystalline wax exports amounted to 7,049,766 pounds in March valued at $934,904.

Major shipments were made to:

France—1,420,387 pounds valued at $179,739.

United Kingdom—1,197,233 pounds valued at $131,817.

The Netherlands—712,024 pounds valued at $96,721.

Canada—670,466 pounds valued $82,708.

W. Germany—578,621 pounds valued at $95,562.

Exports of fully refined paraffin wax totaled 15,436,180 pounds in March valued at $932,557.

Major shipments were made to:

W. Germany—5,349,712 pounds valued at $258,347.

United Kingdom—2,634,235 pounds valued at $154,729.

Canada—1,060,047 pounds valued at $73,677.

Mexico—964,635 pounds valued at $62,742.

The Netherlands—843,884 pounds valued at $51,072.

Crude paraffin exports totaled 12,175,006 pounds in March valued at $619,623.

Major shipments were made to:

Colombia—3,816,627 pounds valued at $210,932.

Mexico—3,348,415 pounds valued at $138,437.

Canada—2,135,751 pounds valued at $99,273.

Chile—808,299 pounds valued at $49,881.

## Miscellaneous

**Mineral Oils**—Market picture has returned to normal after the recent price increases.

Producers report most consumers ordered their allowable percentages of material under contract clause which allowed them to order at the old price for thirty days after the price increase announcement.

**One midwest producer reports a new application in the plastics field for mineral oils. Believed to be used in polyethylene projection molding, the new application will widen the already diversified use of mineral oils.**

### Crude Oil Stocks Climb

Domestic and foreign crude petroleum stocks at the close of the week ended April 29 were 2,222,000 bbls. higher than at the end of the preceding week.

Week ended April 29—251,600,000 bbls.

Preceding week—249,378,000 bbls.

This increase comprises an increase of 3,034,000 bbls. in stocks of domestic crude and a decrease of 812,000 bbls. of foreign crude.

(Source: Bureau of Mines)

# Trade Name Chemicals

## Glyceride Food-Emulsifier Tally: 100 Million Lbs. Worth $20 Million

Open market sale of mono- and diglyceride food emulsifiers is currently estimated at about 100 million pounds valued at $20 million. A breakdown of major end-uses indicates 50-60 million pounds go into edible oils, 25-30 million are used in the baking industry, and 5-6 million pounds go into dairy products. Actual consumption of this type of emulsifier is substantially higher than open market sale due to the huge captive production attributed to shortening manufacturers. In addition, other materials such as lecithin, used in specific applications, are considered by many observers as belonging in the food emulsifier category.

**FOOD CHEMICALS: MARKETS FOR '61**

| | |
|---|---|
| Emulsifiers . | *$20.0 million |
| Stabilizers .. | 18.0 million |
| Fungistats .. | 8.0 million |
| Sweeteners.. | 5.0 million |
| Antioxidants. | 3.5 million |
| Total | $54.5 million |

*Non-captive

A large concern may have captive emulsifier requirements ranging up to 40 million pounds, according to one estimate. Big captive producers include such companies as Procter & Gamble Company, Wesson Oil Products Company, Lever Brothers Company, Swift & Co., Durkee Famous Foods and E. F. Drew & Co.

Swift, Durkee, and E. F. Drew all offer products on the open market. In July, 1960, E. F. Drew set up a separate food emulsifier division to market the "Drewmulse" line for both domestic and foreign needs.

**New Division at Boonton**

Production, research and development laboratories, pilot plant and headquarters of the new division are located in Boonton, N. J. The company's Ajax, Ontario, plant services consumer requirements in Canada.

Companies more clearly considered as being in the chemical busines, which offer mono- and diglyceride food emulsifiers, are Atlas Powder Company with "Atmos" and "Atmul" products, Distillation Products Industries (higher monoglycerides) and Glyco Chemicals, a division of Chas. L. Huisking & Co.

What form an emulsifier product takes depends more or less on application. Products are available in liquid and solid forms. They may be marketed as flake or powder, as oily, viscous greases, as semi-liquids having about the consistency of molasses, or as clear, light colored liquids. Prices average 20 cents a pound.

New types of products on the market a few years ago ran headlong into a confusing situation in regard to just what government requirements would have to be met.

However, some observers say that Food & Drug Administration efforts and activities have defined requirements for additives so well in the past year or so, that companies are beginning to think again in terms of new product development. This is most true of manufacturers who do not have the extensive testing facilities of some of the major producers.

**FDA Seeks 'Proper' Use**

It's pointed out that this outlook is in contrast to a general feeling three or four years ago that FDA interest was in ruling out use of additives entirely rather than in seeing that they are safely and properly used.

Yet to be assessed, is the impact FDA approval of two Atlas Powder Company products, "Tween 60" and "Span 60," will have on the 25-million-pound baked goods outlet.

Both products were approved early this year for use in cake mixes, whipped vegetable toppings and confectionary coatings. Company feeling is that these products along with "Tween 65" and "80" (approved as emulsifiers for use in frozen desserts last July) will supplement, not displace, materials already in use.

"Atmul" food emulsifiers are mono- and diglycerides of fat-forming fatty acids marketed by Atlas Powder Company. The products also contain minute amounts of BHA and BHT as antioxidants, and citric acid as a metal scavenger. These preservative agents are solubilized in propylene glycol.

"Atmul 200" is a mixture of glycerol esters of palmitic and lactic acids recommended for use in both cake mixes and bakers' cakes. Used alone, Atlas says best results are obtained with the product at a concentration of 10-12 percent based on the weight of shortening in the mix.

However, used with standard mono- and diglycerides, "Atmul 200" at 5-7 percent yields cake mix formulas with even more marked improvement in texture and volume, the company reports.

"Atmos 150" is the tradename for an Atlas mono- and diglyceride emulsifier which finds use in frozen dairy products. The product contains about two-thirds monoglycerides, to produce stiffness, and one-third diglycerides to disperse the "monos" into the mix, and to give uniform performance of the emulsifier under varying conditions of formulation and processing.

Liquid "Atmos 300," also directed to the dairy industry, has found acceptance in soft serve and specialty ice cream novelties requiring a drier product which will not drip or lose its shape before eaten.

The product can also be used in bulk work, may be added at various points in production, and can be pumped and metered and used with different types of equipment.

**Liquid Product a Versatile Additive**

Atlas points out that unlike powdered emulsifiers which can only be added prior to pasturization, "Atmos 300" can be added at the flavor tank behind the freezer.

The product can also be pumped and metered instead of weighed, and fits into continuous processing, eliminating costly manual weighing and addition to the mix.

Use concentrations are low. For example, Atlas reports, ice cream manufacturers can use one-half as much of the liquid product as conventional low "mono" emulsifiers and still produce drier bulk ice cream. Likewise, drier novelties can be made with one-half the amount "Atmos 300" as with any other mono- and diglyceride, the company says.

E. F. Drew & Co. manufactures food emulsifiers for its own shortening and edible oil use as well as for its dairy division where the products are used as ice cream emulsifiers and stabilizers.

In addition to an extended line of animal and vegetable-based monoglycerides marketed under the "Drewmulse" tradename, the firm has available numerous special edible products. For example, "S. P. 1223" is a highly fractionated liquid of coconut oil origin which remains fluid at 32 degrees F.

**Product Used as Carrier**

The product is used extensively as a carrier for vitamins, antibiotics and medicinals and as a slab oil and polishing agent for candy pans, hard gums and sugar coated pieces.

Another special product, "1400," is a concentrated fractionated oil, also based on coconut oil, which remains fluid below freezing. The product is reported alcohol soluble, stable and an effective constituent for edible flavors, perfumes, medicinals and dyes. The company also has available a number of vegetable pan release compounds for general bakery use.

Witco Chemical Company markets emulsifier products under the "Emcol" tradename. Products aimed at the food industry are "Emcol MST" (glycerol mono-

—Continued on page 74

# Oils, Fats and Waxes

Consuming demand for oils and fats lacked volume last week and was restricted to prompt requirements. Edible vegetable oils continued to reflect wide fluctuations in soybeans, which caused soybean oil to decline early in the period, but rallied and closed without change. Crude cottonseed oil was in small supply and did not follow the futures market, remaining unchanged and steady. Peanut oil was unchanged and firm because of limited production. Corn oil was well held at former levels. Crude coconut oil closed steady with sales taking place at unchanged quotations. Copra remained firm.

Light offerings of greases and tallow kept the market steady despite limited buying interest from round lot buyers. Export interest also lagged. Choice white grease was lower with lard as was edible tallow. Other grades were well held at former levels. Cash lard was slightly lower.

Trend of tung oil continued downward, because of slow buying interest. Light sales were reported at ½ cent lower in the local market. No trading took place in government owned oil last week as buyers showed no interest by not submitting bids. Refined fish oils were firmer and ½ cent higher because of the increase in cost of crude menhaden which was moved up recently ½ cent per pound. Menhaden fishing in the Gulf last week was poor because of bad weather conditions. Linseed castor, oiticica oils were quiet, but moved in good volume against former contracts.

Soybean meal was higher, up 50 cents per ton, while resale linseed meal was sold at 50 cents lower. Cottonseed and peanut meals were in limited supply and small lots commanded premiums.

### Price Trends

**Advanced**

Fish oils, refd., ½c. per lb.
Soybean meal, 50c. per ton.

**Reduced**

Cocoa butter, 1½c. per lb.
Grease, choice white, ¼c. per lb.
Linseed meal, 50c. per ton.
Tallow, edible, ¼c. per lb.
Tung oil, ¼c. to ½c. per lb.

**Comparative Price Indexes**

(100=1949 average)

| Last week | Prev. week | Last month | May 13, 1960 |
|---|---|---|---|
| 113.82 | 113.51 | 111.10 | 111.83 |

*For Current Prices see Page 10*

## Vegetable Oils

**Castor**—Market remained steady and unchanged. No. 1 Brazilian oil was generally held at 17¾c. per pound, tankcars, New York.

Demand was chiefly for prompt needs. Domestic grades were maintained at former levels.

Imports of castor beans and castor oil at New York and Philadelphia last week were as follows:

| | Pounds | |
|---|---|---|
| | Castor Beans | Castor Oil |
| Last week | ..... | 1,980,000 |
| Previous week | ..... | 1,100,000 |
| Corresponding week, 1960 | ..... | 300,000 |
| Total this year | ..... | 30,562,000 |
| Corresponding period, 1960 | 1,934,700 | 33,110,000 |

**Coconut**—This market was irregular and closed unchanged. Offers for shipments were scarcer and raised ¼c. Crude was sold at 11¾c. per pound, tankcars, f.o.b. Pacific coast, prompt shipment and offered at 13⅛c. f.o.b. New York, prompt delivery.

**Corn**—Trading was limited to actual needs. Crude was steady and sold at 17½c. per pound, tankcars, New York, prompt delivery. Refined oil was lower at 21.23c., tankcars, New York basis.

**Cottonseed**—Futures fluctuated widely with soybeans and closed slightly lower except the May delivery which advanced fractionally on the New York Produce Exchange last week. Tight supply situation in May oil caused prices to advance fractionally above July and deferred months. Trading was active and mixed. May tenders were increased to 42 contracts and readily stopped. Cash oil was scarce and firm. Refined salad was held at 18¼c. per pound tankcars, New York, prompt delivery.

The Department of Agriculture signed an agreement last week with Israel for the purchase of $6,700,00 worth of cottonseed or soybean oils.

Trading in crude cottonseed oil is not following the trend of future markets as supplies are light and offers scarce. Market was steady with sales at 14¼c. per pound, tankcars f.o.b. points in Texas, Valley and southeast points.

### Cottonseed Oil Futures

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended Friday, May 12, follow:

| | Sales | High | Low | Close |
|---|---|---|---|---|
| | | Cents per Pound | | |
| May | 307 | 16.65 | 16.04 | 16.43S |
| July | 1,265 | 16.07 | 15.60 | 16.01S |
| Sept. | 223 | 15.23 | 14.90 | 15.13S |
| Oct. | 164 | 14.65 | 14.40 | 14.50S |
| Dec. | 89 | 14.46 | 14.17 | 14.29S |

Total sales and switches, 2,048 contracts.

Cottonseed production in 1960 totaled 5,886,000 tons, 2 percent less than in 1959 according to the Department of Agriculture. The average price was $42.50 per ton against $38.80 for the 1959 crop. The loan rate for 1961 eligible cottonseed crop will be $49 per ton, basis grade 100. In areas where nonparticipation by ginners make it necessary, CCC will purchase from producers at $45 per ton and at $49 from participating ginners. Complete provisions and regulations of the cottonseed support program are being developed and will be published in the near future.

**Linseed**—Withdrawals continued to improve against contracts, while new orders were limited to fill-in needs. Raw oil was unchanged and steady at 13.1c. per pound, tankcars, Minneapolis, May-June delivery; 13.3c., August-September and 14.22c., f.o.b. New York for prompt delivery.

**Olive** — Primary markets continued firm. Spanish oil was maintained at $53 per 100 kilos, drums, f.o.b. ports with sales for June shipment. Tunisian was higher ranging from $57 for virgin and $60 for refined, c. and f. New York prompt shipment. Demand for spot oil was limited. Prices were unchanged at $2.35 to $2.40 per gallon, drums, exwarehouse, according to quantity.

**Peanut** — Crude was firm and unchanged at 15c. per pound, tankcars, f.o.b. mills, southeast for prompt shipment. Production was limited. Refined oil was quoted at 18½c., tankcars, New York basis.

**Soybean**—This market was irregular with fluctuations in beans. Crude closed steady at 12⅞c. per pound, tankcars, f.o.b. Decatur, unrestricted, May shipment. Refined salad moved in fair volume and was held at 15¼c. tankcars, New York basis.

The Census Bureau has revised total stocks of refined soybean oil for March 1961 to 202,200,000 pounds from previous published total of 286,800,000 pounds and published figures of salad or cooking oils of 63,900,000 pounds were increased to 148,500,000 pounds.

**Tall**—Strong tone continued to feature this market. Demand continued active for prompt shipment and against former contracts. Distilled was firmer and prices were raised ¾c. per pound in some quarters, with others expected to follow suit soon. Tall oil fatty acids were also advanced at least 1c. in some directions. Crude oil was firmly held at 3¼c., tankcars, f.o.b. works, with occasional cars moved at ¼c. more.

**Tung**—Buying interest lagged and market continued unsettled. Prices were off about ½c. Tankcars were more or less nominal at 25½c. per pound, New York, prompt delivery, with light sales reported at this figure. Some sellers were naming ¼c. more. Drums were lower, ranging from 27c. to 27½c., spot, as to quantity.

Sales of government owned oil were nil last week because bids were not submitted.

## Miscellaneous

**Cocoa Butter**—Market was easy and lower. Spot stocks ranged from 55c. to 60c. per pound, as to quantity.

**Copra**—Shipments were firm and sold at $160 per ton, c.i.f. Pacific coast.

**Flaxseed**—Moderate volume of cash


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# Oils, Fats and Waxes

flaxseed traded on to-arrive basis ahead of a 3c. decline to $3.12 a bushel, spot and to-arrive, basis Minneapolis. Spot trading was virtually nil while purchases for deferred arrival amounted to six cars and about 65,000 bushels in roundlots. Seeding is about 40 percent completed in Minnesota, 8 percent in North Dakota and 35 percent in South Dakota.

County and terminal price-support rates for 1961-crop flaxseed were announced last week by the Department of Agriculture. The rates are based on the 1961-crop national average support price of $2.80 per bushel, which is 42c. per bushel higher than the $2.38 per bushel for the 1950 crop.

Following are terminal supports rates per bushel for 1961-crop flaxseed compared with 1960 rates:

| Flaxseed, Grading No. 1 | 1961 | 1960 |
|---|---|---|
| Los Angeles, Calif. | $3.33 | $2.91 |
| San Francisco, Calif. | 3.27 | 2.85 |
| Duluth, Minneapolis, St. Paul, Minn.; and Superior, Wis. | 3.07 | 2.65 |
| Corpus Christi and Houston, Texas | 2.82 | 2.40 |

## Fats and Greases

**Greases**—Light trading was noted last week. Choice white grease was lower with lard and sold down to 8½c. per pound, tankcars, delivered. Yellow grease was steady at 7½c. to 7⅝c., same basis for round lots, with specialty buyers paying ¼c. more.

**Lard**—Market was easy and lower. Cash lard declined to 11c. per pound, drums, Chicago.

**Tallow**—Market remained steady reflecting sold up production. Offers were limited, but buyers showed little interest in replacements. Bleachable fancy ranged from 8c. to 8⅛c. per pound, tankcars, delivered; prime, 7¾c. to 7⅞c.; guaranteed fancy; 8⅜c.; special, 7⅝c. to 7¾c. and No. 1, 7½c. to 7⅝c. same basis. Guaranteed fancy in bulk was nominal at 8½c. f.o.b. steamer and 9½c. to 9⅝c., drums, f.a.s.

## Fish Oils

**Cod**—This market was unchanged and steady. Prompt shipments were in moderate demand and maintained at 7⅛c. per pound, bulk, f.o.b. Gloucester, Mass. Spot stocks ranged from 8¼c. to 8½c. per pound, according to quantity.

**Menhaden**—Consumer interest as well as for export was fairly active. Crude was well held at 6¾c. per pound, tankcars, f.o.b. works, with recent trading thereat. New production was light because fishing in the Gulf was affected by adverse weather conditions last week. Refined oil was firmer and advanced ½c. Light pressed was higher at 10.80c. per pound, tankcars, New York basis.

## Cake and Meal

**Cottonseed Meal**—Supplies are low and prices firm. Meal, 41 percent ranged from $63 to $65 per ton, sacked in the Mississippi area and $70, Georgia-Alabama.

**Linseed Meal**—Softer undertone developed in this market and, while crusher quotations were unchanged, track cars sold at moderate concessions. Recent weakness in soybean meal halted switch to linseed and started a trend back to soybean. Shipping directions on meal were active. Extracted meal, 34 percent protein, bulk, in carlots, f.o.b., Minneapolis, was quoted $56 a ton for May-June and $57 for July. Old process expeller, 32 percent, held at $60.50 for May-June; $61, July-August, and $62.50, September-December.

**Soybean Meal**—Prices in this market covered a wide range, following erratic ups and downs of soybeans futures. Nominal quotations were 50c. higher. There was good demand for meal but not enough to readily absorb the heavy production, especially in Iowa. Spotty improvement was noted in formula feed business. Meal, 44 percent protein was quoted at $73 ton, unrestricted, bulk, Decatur, prompt delivery.

## Waxes, Vegetable

While consumer demand for vegetable waxes was restricted to actual needs, the market as a whole remained on a steady basis. Carnauba grades were unchanged but steadier, reflecting the firmness of replacements from Brazil, which reduced selling pressure on spot. No. 3 Ceara crude was maintained at 59c. to 61c. per pound, depending upon quantity and Parnahyba 61c. to 62c., same basis. Increased interest for yellows was noted for prompt shipment, but bids attracted little attention as offerings were light and closely held. No. 1 yellow was unchanged on spot at 82c. to 83c. per pound, as to quantity and Parnahyba was held at 3c. more.

Crude beeswax was firm for shipment and offerings were not liberal and well held. Refined beeswax was unchanged and steady.

# Trade Name Chemicals

—*Continued from page 72*

stearate from hydrogenated tallow) and "Emcol RGV" (plastic vegetable mono- and diglyceride).

Emcol MST" is a general-purpose food emulsifier for application in ice cream, margarine and bread. "Emcol RVG" is recommended for incorporation in shortenings which are to be used in baking bread, soft buns, cakes and other sweet goods.

## Trade Name Briefs

**IFT AWARD:** Swift & Co. was awarded the food technology industrial achievement award at the annual meeting of the Institute of Food Technologists held last week in New York. The company received the award for discovery and refinement of "ProTen," an ante-mortem injection of highly refined papain solution for tenderizing meat.

**DIEPOXIDE RESINS:** Union Carbide Chemicals Company plans to make available a number of its diepoxide resin patents. Primary objective is to broaden development and application of compounds based on "Unox Epoxide 201" on which Carbide holds a composition of matter patent.

Patents available for licensing on a royalty basis cover polymerizable and polymeric compositions based on or containing the compound and/or related materials.

**ENZYMES:** Rohm & Haas Company has made a move to further standardize methods of enzyme assay. The company is changing over to the new Association of Official Agricultural Chemists hemoglobin assay procedure for determining proteolytic activity. The method is based on procedures developed in R&H's analytical laboratories.

What is involved basically, the company says, is simply a re-definition of the hemoglobin unit based on modifications of the assay procedure designed to improve the reliability and precision of the method.

Because of re-definition, 1.000 old unit is equal in activity to 1.470 new hemoglobin units. On this basis, the new procedure will give numerical values approximately 50 percent higher than the former method.

Thus, the HU value of 50,000 now specified for each gram of "Rhozyme A-4" and "Protease 41" will be exactly equivalent in protease activity to the 34,000 previously specified.

Rohm & Haas points out that all former versions of the HU method gave unreliable and highly variable results chiefly because the value obtained was critically dependent on sample size.

Last year the AOAC adopted as part of its official procedure the refinements in method of calculation suggested by Rohm & Haas in '59. This makes the assay essentially independent of sample weight within relatively wide limits.

The *SPECIAL* WAX you're looking for

If your problem calls for hardness, solvent retention, chemical inertness, solubility in hot solvents, compatability with dyes and other waxes, emulsifiability, water insolubility, ease of saponification, electrical insulating capacity and low cost—then you need

RIEBECK® ROMONTA® MONTAN WAX

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139 Franklin Street, New York 13, N.Y.

# BRILL FOR VALUES

## CENTRIFUGES

2—Sharples C-20 and C-27 Super-D-Hydrator, 316 S.S.
**1—Bird 18"x28", Solid Bowl, Continuous, 304 S.S.**
**2—Bird 24" x 38" Solid Bowl Continuous 304 SS.**
1—Bird 36" x 50" solid bowl continuous, 347 SS.
**1—Bird 40" x 60" solid bowl continuous, 316 SS, UNUSED.**
3—Sharples PY14, PN14 Super-D-Canters 316 S.S.
**2—Fletcher 48" Suspended 316 S.S. Perforated Basket.**
2—Sharples #16, 304 S.S., 3 HP motor.

## REACTORS — EVAPS — CONDS — TANKS

**1—Pfaudler 125 gal. 304 SS jacketed agitated Reactor, 150# int., 125# jacket.**
3—Pfaudler 200 gal. glass lined jacketed Kettles.
2—Pfaudler 850 and 650 gal. Steel jacketed agitated Reactors.
1—650 gal. 304 S.S. Reactor with 100 sq. ft. Bayonet Heater.
1—550 sq. ft. Buflovak monel single effect Evaporator.
**1—500 gal. S.S. Mixing Tank with nickel coils.**
1—2,000 gal. horizontal 304 S.S. tank 5' x 12'.
1—2,500 gal. vertical 304 SS Tank, 8' x 7'.
**2—2700 gal. 316 SS vertical agitated Tanks with coils.**
1—4200 gal. 316 SS verticals Tank, 8' x 12'.
1—5500 gal. 316 SS clad pressure Tanks, 250 psi.
**6—7500, 6000 and 2000 gal. Rubber Lined Tanks.**
1—10,000 gal. rubber lined Tank, 10' x 17'6".
1—12,000 gal. horiz. steel Pressure Tank, 7'6"x36', 200 psi.
4—Stainless Heat Exchangers; 536, 370, 315, 250 sq. ft.
1—24" dia. x 35', 304 S.S. Bubble Cap Column.

## FILTERS

**1—#5 Sweetland Filter 304 S.S. 120 sq. ft.**
1—Oliver 6' dia. Horizontal Filter, 316 S.S.
**1—Oliver 4' dia. monel, horizontal Filter.**
1—Oliver 5' x 6' Steel Rotary Vacuum Precoat Filter.
**1—U.S. 200 sq. ft. 304 S.S. Auto-Jet Filter.**
**1—Hercules 400 sq. ft. 304 SS pressure Filter.**
**1—Oliver 5'3"x8' Steel Rotary Vacuum, vaportite housing.**
**1—Feinc 5'x6' Stainless Steel Rotary Vacuum Filter.**
1—Feinc 3' x 1' 316 SS Rotary vacuum Filter.
2—#10 Sweetland Filters, 27 leaves, 4" centers, 250 sq. ft.

## DRYERS

1—Buflovak Vacuum Shelf with 17—60" x 80" shelves.
**2—Buflovak 42"x120", atmospheric double drum Dryers, complete.**
**1—Buflovak 32" x 90" Atmos. Twin Drum Dryer.**
2—Devine 4'x9', single drum, atmospheric.
**1—Buflovak 3'x10' Rotary Vacuum Dryer.**
**1—Stokes 4' x 20', 304 SS, Rotary Vacuum Dryer.**
6—Louisville Rotary Steam Tube 5'x25', 6'x30', 6'x50'.
**2—Louisville 8'x50' Stainless Steel lined Rotary Dryers.**
9—Rotary Dryers 34"x30', 4'x40', 6'x50', 6'x60', 7'x80', 8'x87'.
**1—Louisville 4-1/2' x 25' Inconel Rotary Dryer.**
2—Link Belt, 7'5"x25', 6'4"x24", S.S. Louvre Dryers.
**1—Stokes Model 38-A Tray Dryer with 16—36" x 36" SS shelves.**
2—Atmos. Tray Dryers, 16 shelves, 40"x24".
**1—P&S 6' wide Apron Conveyor Dryer 48' long.**
2—Wyssmont Dryers, 304 SS, 6'2" and 9'6" dia.

## MIXERS

**1—Abbe 110 gal. 304 SS Jacketed Agitated Vacuum Dispersal Mixer.**
**2—Day Imperial 150 gal. jktd. double arm.**
**2—Baker Perkins 150 and 100 gal. jacketed double arm sigma blades.**
1—Baker Perkins 50 gal. jacketed, double arm.
5—Day "Cincinnatus" double arm, 250 and 100 gal.
2—Steel jacketed Powder Mixers, 225 and 350 cu. ft.
1—Patterson 6' dia. Conical Blender 15 HP.
1—3' dia. Simpson Intensive Mixer.
**1—2' dia. Simpson Intensive Mixer, 304 SS.**
**1—45" dia. Lancaster Mixer, 7-1/2 HP motor.**
1—Patterson Kelly 150 cu. ft. Twin Shell Blender.
**1—Patterson 80 cu. ft. conical Blender, 304 SS.**

## MISCELLANEOUS

**3—Kinney Vacuum Pumps, 1000 cfm, 10 micron, 15 HP.**
1—Thropp 6" x 12" 2 Roll Mill, 7-1/2 HP motor.
3—Nikro Pulverizers, 1 SH, 1S1 and Bantam.
2—Hardinge 5' x 22" steel lined conical Ball Mills.
4—Mikro Pulverizers, #4TH, 1SH, 1S1 and Bantam.
3—Abbe 2½' x 3' porcelain lined Pebble Mill XP motor.
1—Raymond 10" vert Mill, 10 HP.
1—No. 1 Ball & Jewell Rotary Cutter.
1—#18 Cumberland Rotary Cutter.
3—Swenson Walker Continuous Crystallizers, 24" x 30' sections.
2—#842 Rotex Sifters 60" x 84" double deck.
**1—#24 Rotex Sifter, 20" x 64", Quadruple deck.**

***Partial List of Values — Send for Complete Circular***

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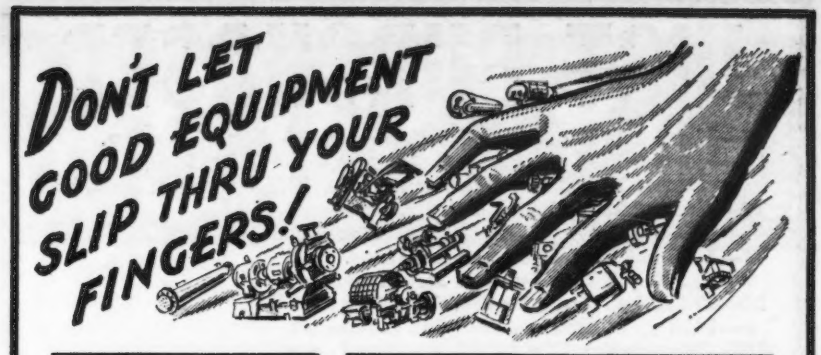


## SPOTLIGHT SPECIALS

**Lancaster Type "PC" Lab. Precision Mixer; Motorized**
**Szegvari Stainless Lab. Attrition Mill Type SU**
**Kent 3 Roll Lab. Mill 4"x8" with Motor & Starter**
**20 HP Lightnin' Agitators, 1750 to 125 RPM; 3/60/220/440**
**Tumbling Batch Mixers from 5 cu. ft. to 600 cu. ft.**
**Baker-Perkins Sigma Arm Stainless Lab. Mixer; 6½" x 9½" x 11½"**

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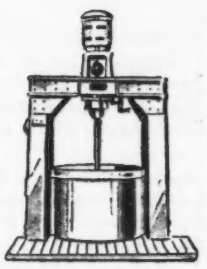

**48" Stainless Steel Bird Suspended Centrifuge Perf. Basket, Plow Discharge.**

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## PLASTIC and RUBBER EQUIPMENT

**Unused F-B 14" x 30" Two Roll Mills**
**Good used 2 Roll Mills, 12"x24", 22"x60"**
**6 Southwark Presses, 36" x 36", 14" Ram**
**Stewart-Boiling Press 36" x 36", 22" Ram**
**HPM Self Cont. Presses, 7 and 25 Ton**
**EXTRUDERS: NRM 1½"; NRM 6" Rubber Tuber.**
**Royle 2" Extruder; Hydraulic Strainer 15"**
**VULCANIZERS: 6'x16', 41"x54", 2'x4', others**
**Utility Rubber Stock Cutter with Conveyor**
**Baker Perkins 150 Gal. Disp. Mixer, 150 HP**
**J H Day Mogul Mixer 150 Gal. V/Cov. 75 HP**
**Baker Perkins 5 Gal. Disp. Mixer, 30 HP**

## OLIVER PRECOAT FILTERS

**3" x 2" Monel. 5'3" x 8' Stainless.**
**(2) 5'3" x 3" Steel or Rubber.**
**Feinc S/S Rot. Vac. Filter 3' x 1'.**
**Oliver Cont. Rot. Vacuum Filters.**
**Panel Type; 8' x 8' and 8' x 10'.**

## REACTORS—PRESSURE VESSELS

**2 Stainless 400 gal. Reactors Jktd. Agtd. by Patterson and Struthers Wells.**
**6 Dorr-Oliver Stainless Steel Thickeners or Reaction Vessels; 550 gal. 5' x 5'.**
**Stainless Reactor, 2000 gal. Fully Jktd. Agitated.**
**Lancaster Stainless Lined Rotary Reactor or Digester; 50" x 17'4"; Jacketed; good for 300 PSI Internal.**
**Pfaudler Gl. Lined Reactors; all sizes from 50 to 1000 gal.**
**Mojonnier Stainless Vac. Pans; 3'x10' and 6' x 12'; others.**
**2 MONEL Clad 2800 Gal. Reactors; 6'8" x 13'5"; Agitated; Jktd. 175#.**

## EVAPORATORS—DRYERS

**Buflovak S/Steel Thermo-Recompression Evaporator.**
**Link Belt Roto Louvre Dryer model 502-20.**
**Pittsburg Lectro Dryers, Bac 25 and BWC 3400.**
**Devine Vac. Chamber Dryers, Double Door Model No. 36.**
**Stainless Lab. Drum Dryer, 8"x11½".**
**Bowen S/S Lab. Spray Dryer.**

**NOW IN STOCK for IMMEDIATE DELIVERY. ALL SIZES FALCON Ribbon Blenders in Steel or Stainless.**

## FILTERS—FILTER PRESSES

**4 Pressure Filters 30" x 56" Type 316 Stainless; 100 sq. ft.**
**Sparkler Steel Filter Model 33 S 17.**
**S/S Nutsche Type Filter; 6' x 2'.**
**Bowser Filter with Pump; 2000 GPH.**

## CENTRIFUGES

**Stainless Centrifugals from 30" to 60"; A.T.&M. Tolhurst, Fletcher, etc.**
**2 Sharples Stainless Steel Model PN14 Super-D-Canters.**
**4311 S 1 Sharples C 27 Super-D-Hydrator in Type 316 Stainless with 40 HP motor.**
**5147 S 13-14 Two Bird Continuous Screen Type Horizontal Centrifuges; Monel & S.S.; 24" x 24".**
**2 Bird Rubber Covered, 48" with Plows; Fume Tight; 40 HP.**

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**2 Stainless Steel Micronizers 30".**
**Abbe, Ball & Jewell Rotary Cutters; in a wide range of sizes, capacities.**
**Ball Mills and Pebble Mills by Abbe, Paterson, International, some Jacketed; up to 8' x 8'.**
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**Fitzpatrick Comminutators; Models D, K and C; motorized.**
**American Ring Roll Crusher; 50 HP.**
**Mikro S/S Atomizers; Nos. 6 and 5.**
**Raymond Imp Mills; many sizes.**
**Williams Hammer Mills to 60 HP.**

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**2—Allis Chalmers 7' x 22' (2 Compartment) Compeb Ball Mills with Meehanite Liners, driven by a magnetic-coupled 400 HP Motor.**
**1—Allis Chalmers 9½ x 810 Preliminator or Continuous Ball Mill; Meehanite Liners, driven by a magnetic-coupled 400 HP Motor.**
**3—Allis Chalmers 7' x 22' Continuous Ball Tube Mills, with Meehanite Liners, each driven by a magnetic-coupled 400 HP Motor, now operating in closed circuit with**
**3—Raymond 14 Ft. Double Whizzer Mechanical Air Separators, New in 1950, each driven by 75 HP Motor. May be purchased separately. SEND FOR PRICES AND DETAILS.**

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**72—Pfaudler 1400 gal. Blue G/L Kettles, Jkt. & Agit., Open Top.**
**18—Pfaudler 1250 gal. Blue G/L Reactors, closed, Jkt. & Agit.**
**18—Pfaudler 11,500 Blue G/L Horiz. Tanks, 20# WP Nickel Coils.**
**72—Pfaudler 250 gal. Blue G/L Jkt. Kettles.**
**60—1350 gal. T347 SS Tanks, ASME 60# WP, Coils.**
**18—3650 gal. Vert. Stainless Steel Tanks.**
**9—13,300 gal. Vert. Stainless Steel Tanks.**
**20—27,500 gal. Horiz. Steel Tanks, ASME 75# WP.**
**6—1450 sq. ft. Stainless Vert. Gas Exchangers.**
**150—Worthington 2" x 1-1/2" Worthite Pumps.**
**54—5200 gal. Horiz. Steel Tanks, 55# WP.**

### DRYERS

**1—Buflovak 32" x 72" Twin-Drum Dryer, Chrome-Plated, Stainless Conveyors, Hoods, etc. Late Model!**
**5—Buflovak 42" x 120" Drum Dryers, ASME 160#.**
1—American 42" x 120" dbl. Drum Dryer, ASME, stainless.
1—Buflovak 42" x 90" dbl. Drum Dryer.
**1—American 36" x 84" Dbl. Drum Dryer, ASME, Vacuum.**
**1—Buflovak 5' x 12' Single Drum Dryer, Vacuum.**
1—Buflovak 32" x 52" Dbl. Drum Dryer, ASME 100# WP.
1—Buflovak 110 sq. ft. Vacuum Shelf Dryer.
5—Stokes 195 sq. ft. Vacuum Shelf Dryers, #138J-16.
**2—Davenport 8' x 60' Rotary Dryers, 7/16" Welded, Burners, Fans, etc.**
1—Louisville 4'6" x 25' Rot. Steam-Tube Dryer, Welded.
1—Hardinge 4' x 30' Rot. Steam-Tube Dryer.
1—Bartlett 3' x 15' Rotary Dryer, Everdur Shell.
**1—Nerco-Niro Portable Stainless Spray Dryer.**

### FILTERS — CENTRIFUGALS

3—Sweetland #12 Pressure-Leaf Filters, (72) St. St. Leaves.
**5—Shriver 48" Cast Iron Filter Presses, 1250 sq. ft.**
**6—Valley 36" Aluminum Filter Presses, 1000 sq. ft.**
1—Niagara #510-28 T316SS Pressure Filter.
**1—Oliver 5'3" x 8' Precoat Rot. Vacuum Filter—Unused.**
2—Oliver 5'3" Precoat T316 SS Rot. Vacuum Filters.
**10—Davenport Dewatering Presses; #1A, 2A, 3A.**
**25—Sharples #AS-16V Super Centrifugals, Inconel, Sludge Disch.**
3—Sharples #C-20, C-27 Super-D-Hydrators, T316SS.
2—Sharples #16-P cent., T304SS, Pressuretite.
**3—Bird 24" x 24", Monel Slotted-Bowl.**
1—Bird 24" x 38", Steel, Cylindrical Bowl.
**2—Bird 24" x 38", T304SS Conical Bowl.**
**1—Tolhurst 48" Susp. Cent., T304SS.**
**5—A.T.&M. 40" Susp. Cent., T304SS Solid, 40/5 HP.**
2—A.T.&M. 32" Susp. Cent., T304SS Solid, 30 HP.
1—Fletcher 30" Junior, T304SS Extractor, Perf.
1—Tolhurst 26" Susp. Cent., Steel, Perf., 5—2 1/2 HP.
1—A.T.&M. 12" Susp. Cent., T304SS, Perf.

### MIXERS — MILLS

**50—Baker Perkins #17, 200 gal. Sigma Jktd. Mixers.**
**1—Baker Perkins #16-UUEM, 150 gal. Dispersion Mixer, 150 HP XP Motor, 125# Jacketed, Vaulted Cover.**
**1—Baker Perkins #15-UUMM, 100 gal. Dispersion Mixer, 100 HP, ASME Jacket, Cored Blades, Compression Cover, Motorized Tilt.**
**1—Baker Perkins #15, 100 gal. Disp. Mixer, T347SS, Jkt.**
1—J. H. Day #6 Cinc., 100 gal., Sigma Blades, Stainless.
2—J. H. Day #5 Cinc., 75 gal., Sigma Blades.
**1—Gemco 60 cu. ft. T304SS Conical Blender.**
**13—Abbe 6' x 8' Pebble Mills, Stone Lined, 30 HP.**
1—#2TH Mikro Pulverizer, 10 HP.
2—Hardinge 7' x 36" Conical Pebble Mills.
**1—Allis-Chalmers 5' x 5' Contin. Ball Mill, 75 HP.**
**1—Raymond 50", 5-Roller Hi-Side Mill.**

## T304 STAINLESSS VERT. TANKS

**1—2700 gal. 7'6" x 7'6" Dished Bottom, Flat Top, 3/8" Const., 100 sq. ft. Coil. Turbine Agit.**
**3—2200 gal., 8' x 6', Flat Top, Sloping Bottom, 1/8" Const. Coils.**
**3—2100 gal. 8' x 5'6", Dished Bottom, Flat Top, Coils & Agit.**
1—2000 gal. 8' x 5' Cone Bottom Hinged Dished Top. 3/8"
1—1300 gal., 6' x 6', Dished Bottom, Hinged Dished Top. 5/16"
2—1000 gal., 4'6" x 8'6", Flat Heads. 3/16".
**1—1000 gal., 4'6" x 8'6", Dished Heads, 3/16".**
4—1000 gal., 6' x 5', Flat Heads, 14 ga.
1—900 gal., 6' x 4', Dished Bottom, Open Top.
**1—750 gal. 5' x 5', Dished Heads, 3/16".**
1—575 gal., 5' x 4', Flat Heads, T304L SS.

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## ECONOMIZE DOLLARWISE

4—A O Smith 12,500 gal Tanks, glass lined horiz storage. 11' OD x 19'6" 1
1—Tyler Ty-Rock Screen, 4' x 12' Single deck. mt on "I" beam frame
1—Buflovak Tray Dryer, 24" x 24" comp/with Vac Pump & SS trays
3—Syntron Vibratory Spiral Elevators. SS Elevator 8'6". Dust-tite dr & contr.
5—Jeffrey Feeders, elec. vibrating. SS contact. Model FO#3. Cov. deck
1—Abbe Pebble Mill 3' x 3' buhrstone lined. Full charge flint pebbles
2—Patterson 4'6" x 4'6" steel jcktd Ball Mills. Ball charge. 15 HP mtr
1—Cherry Burrell 200 GPH SS Homogenizer. Model 41. 7½ HP

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COLUMN S.S. 4' D x 65' high, 55 plates.
TANKS S.S. 304, 2500 gal. 7' x 8' new.
KNEADER MASTER—Paterson 2½ gal.
COLLOID MILL—Premier UB5 S.S. 5 H.P.
CENTRIFUGE—ATM Susp. 48" 316 S.S., 50 HP.
ROLLER MILLS—Ross 14" x 32" Hi Speed Ross 4½" x 10".
CENTRIFUGE—Tolhurst 20", 40" Rubber Lined.
PEBBLE MILL—Abbe—50 gal.
TABLET PRESSES—DS3, DDS2, Stokes.

**PROCESS PLANTS SERVICE, INC.**
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**2—OLIVER PRESS PRECOAT FILTERS 5'3" x 3'—Type 316 S.S.**
**4—24" FILTER PRESSES—S.S. Fittings, Wood Frames.**
**1—KETTLE S.S., Jacketed, 500 gal.**
**2—KETTLES S.S., Jacketed, agitated, 250 gal.**
**Ball Mills—5x6, 6x8, 5x10.**
**3—PASTE MIXERS, 50 gal., 5 HP.**

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MITCHELL 2-7634

## ECH SPECIALS

**Readco SS J'ktd. 6 qt. Lab Mixer, vac. cover**
**Day 75 gal. sigma arm Mixer, 7½ HP motor**
**Oliver 316 SS Filter 6' dia., 25 sq. ft. cap.**
**Pfaudler 1500 gal. Glass Tank, closed top**
**Blaw Knox SS 100 gal. Autocl, agtd. 1000 psi**
**Cavagnaro sig. arm 200 gal. SS mixer, 75 hp**
**Simpson 24" Lab. Mix Muller with ¾ mtr.**
**Patterson SS 5 cu. ft. Twin Blender, 3 HP**
**Ribbon Blenders, SS & Steel, NEW & USED**

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## "GEARED TO SERVE YOU"

**Patterson 6' Conical Blender—10 HP XP.**
**Day "Roball" 20" x 48" single deck Sifter.**
**Kent 13" x 32" Hi speed 3 Roll Mill—MD.**
**Stokes RDS3 rotary Tablet Press 3 HP XP.**
**Stainless Mikro Pulverizers 1SI & 1SH.**
**Abbe Twin 10 gallon Jar Mill-MD**
**Resina Model SLC Capper—Complete.**
**Stainless Aisop 6" Sealed Disc Filter.**
**Stainless Hormann 10" x 10" Filter Press.**
**Stainless 500 gallon Tank.**
**Day 36" Copper Coating Pan—with motor.**

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### STAINLESS STEEL

B&P 300 gal. 18DIM Sigma Blade Mixer.
Dopp 1000; 1700 gal. Reactors jkt., agit.
435 sq. ft. Single Effect Evaporator.
Goslin Birm. 36"x24" Rotary Vac. Filter.
Sharples C27 Super-D-Hydrator.
3'x18" Crystallizer, jkt., agitated.
Swenson 24"x20' Jacketed Crystallizers.
Brown Fintube Exchanger, 618 sq. ft.
Triplex 2¼"x4" Pumps 18 GPM @ 2000 PSI.
Centrifugal Pumps 1", 1½" & 2".

### S.S. COLUMNS

78"x18' Bubblecap 14 tray, 50 PSI.
72"x30' Bubblecap 21 tray.
54"x30' Bubblecap 26 tray, 100 PSI.
48"x41' Bubblecap 40 tray, 100 PSI.
36"x20' Packed, 100 PSI.
30"x22' Packed, 75 PSI.
14"x18' Packed, 10 PSI.
12"x18' Packed, 100 PSI.

### S.S. TANKS

4500 gal. 6'x25' dish/cone heads, 25 PSI.
4000 gal. 8'x12' dished heads, coiled.
4000 gal. 5'6"x24'6" dish/cone heads, coiled.
4000 gal. 7'6"x14' dished heads.
3500 gal. 8'x9' dished heads.
1500 gal. 6'x6'9" dished heads.
750 gal. 5'x5' plain and agitated.
500 gal. 4'x5' plain and agitated.
400 gal. 4'x4' plain and agitated.
300, 250, 150 & 100 gal.

### MISCELLANEOUS

Sweco 48" Separator 3 SS Screens.
Pfaudler 500 gal. ELL glass lined Reactor.
Buflovak Vac. Drum Dryer, 6"x8" Drums.
Buflovak 6' Vacuum Crystallizers.
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## HERSEY 5' x 26'
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Buffalo Vac. Drum Dryer 24" x 20".
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# EQUIPMENT
## for CHEMICAL AND ALLIED INDUSTRIES

1—Baker Perkins, Size 16, Type UUEM, 150 gal. jacketed double arm, dispersion type mixer, complete with compression cover and 100 HP motor.

1—Niagara stainless steel filter, Model 510-28.

1—Oliver stainless steel rotary vacuum filter, 3' x 4'.

12—Sweetland #12 filters with 72 SS leaves.

1—Sturtevant #7 SS dustite rotary batch blender—NEW.

1—Banbury #1 mixer with 30 HP motor.

15—Robinson type 304 SS horizontal blenders, 255 cu. ft.

1—Robinson type 304 SS horizontal double ribbon blender, 125 cu. ft.

1—J. H. Day 5 gal. double arm sigma blade mixer, SS.

1—Stokes stainless steel granulating mixer, Model 21-J.

1—Stokes SS jacketed rotary vacuum dryer, 2' x 6'.

1—Pfaudler Series P, 30 gal. glass lined jacketed reactor, complete with agitator and drive.

1—Hersey stainless steel rotary dryer, 3' x 20'.

3—Buflovak stainless steel jacketed rotary vacuum dryers, 3' x 15' and 5' x 30'.

1—Buflovak 42" x 100" double drum dryer, complete.

1—American 42" x 120" double drum dryer, complete.

2—Pfaudler Series EM 300 gal. glass lined jacketed reactors.

2—Theo. Walters Hastelloy B 300 gal. jacketed reactors.

1—Pfaudler Series EL 750 gal. glass lined jacketed reactor.

2—Pfaudler Series R 5000 gal. glass lined jacketed reactors, complete with agitators and drives—NEW.

1—Alloy Fabricators 600 gal. steel jacketed autoclave with agitator and drive, 125 psi internal, 60 psi jacket.

1—Struthers Wells SS single effect evaporator 1150 sq. ft.

2—Process Equipment SS 10,000 gal. vertical storage tanks.

1—Sprout Waldron pelletizer, Type 501 FF.

1—Williams "Comet" 4 roll mill, complete, NEW.

1—Raymond 2 roll high side mill.

1—Vulcan stainless steel bubble cap column, 4' x 25 plates.

1—Badger type 316 SS bubble cap column, 36" dia. x 8 trays.

1—Griscom Russell SS heat exchanger, 900 sq. ft.

1—Downington SS heat exchanger, 750 sq. ft.

3—Badger SS heat Exchangers, 500 sq. ft. and 600 sq. ft.

20—Davis Engineering SS heat exchangers, 102, 119, 136, 166 sq. ft. NEW.

2—Davis Engineering, Carpenter 20, heat exchangers, 120 sq. ft.

**R. GELB & SONS, INC.**
UNION, NEW JERSEY Est. 1886 MUrdock 6-4900

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1—Kux ⌀74 Tablet Press, top and bottom pressure, with 10 h.p. vari-drive.

1—Sperry 36" STEAM JACKETED 4 eye cast iron Filter Press, having 39 chambers making 2½" cake.

1—Thropp 18x50" Rubber Mill, floor level type, with reducer, 125 h.p. motor, brake, etc.

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1—42" Sperry Filter 40-plates, 41-frames, hyd. closing, open del.
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1—Abbe Pebble Mill 5' x 22'.
1—Sparkler Filter 33-S-28, with Scavenger Plate, steam jacketed.
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1—Charlotte ND20—S.S. Colloid Mill XP Motor—600 gph.
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1—N. J. Model 86MX Pony Labeler.
1—Resina Automatic Screw Capper Model Spec. 60 pm.—Yr. 1954.
5—Rotex Screens 20" x 38" to 60" x 84".
1—Kent High Speed 3 Roll Mill 13" x 32".
1—Devine Vac. Shelf Dryer, 10 shelves, 40" x 43".
1—Pfaudler 800 Gal. G.L. Jack. Tank w/Ag.
2—Day 40 Gallon Pony Mixers, M.D.

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1—Bird stainless steel 18" x 28" continuous centrifuge.
1—Baker Perkins size 14-JUE 50 gallon jacketed double arm mixer, 50 horsepower.
2—Rotex 40" x 84" double deck sifters.
1—400 gallon stainless steel jacketed and agitated reactor.
1—Simpson #1½ intensive mixer, 4'6" pan.
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# Coating Materials

*—Continued from page 71*

to provide warehousing and bulk facilities for tall oil fatty acids and distilled tall oil.

**PRIMER CUTS DRYING TIME:** Pennsalt Chemicals Corporation, Philadelphia, is offering a primer for floor coatings which can be used on damp concrete surfaces. "Penntrowel Damp Surface Primer" is expected to make possible the installation of floor coatings without long drying time. Described as a two-component, semi-viscous amber-colored liquid, it is reported to have greater bonding strength than concrete, brick or wood.

**SAFETY ENAMELS DEVELOPED:** A new line of safety enamels, to be known as "Saf-T-Enamels," has been developed by the US Paint Company, St. Louis, Mo. Water-thinned, the new enamels reduce fire hazards by omitting the need for solvents, while retaining the gloss and color of conventional solvent systems commonly used in industry, the company reports.

# IMPORTS at United States Ports

## New York

ALUMINUM POWDER—5 dms, Allied Manufacturing Co, Hamburg
ALUMINUM SULFATE—331 bgs, Philipp Bros Chemicals, Bremen
280 bgs, Bremen
AMMONIUM BICARBONATE—50 dms, Chemical Manufacturing Co, Liverpool
AMMONIUM CARBONATE—100 cs, American British Chemical Supplies, Glasgow
48 dms, American Agricultural Chemical Co, Glasgow
AMMONIUM CHLORIDE—100 bgs, Chemical Manufacturing Co, Liverpool
AMYRIS OIL—5 dms, Roure-Dupont Inc, Port Au Prince
ANILINE DYES—5 dms, Putnam Chemical Corp, Hamburg
88 dms, Heemsoth Kerner, Liverpool
30 dms, Sandoz Inc, Havre
25 dms, Carbic Hoechst Corp, Rotterdam
10 dms, Geigy Chemical Corp, Bremerhaven
20 dms, L & R Organic Products, Genoa
14 dms, Antwerp
218 dms, Havre
16 dms, Bremerhaven
ANIMAL CHARCOAL—1,200 bgs, National Sugar Refining Corp, Glasgow
ANISE SEED—100 bgs, E A Johnson, Vera Cruz
o-ANISIDINE—8 dms, Bremen
ANNATTO SEED—50 bls, S American Minerals & Merchandise Corp, Cabedelo
224 bgs, Dorf International, Kingston
ANTIMONY—20 cks, Watson Geach, Middlesbrough
22 dms, J W Hampton Jr, Liverpool
ANTIMONY OXIDE—1,085 bgs, National Lead Co, Liverpool
456 bgs, National Lead Co, Hull
ANTIMONY REGULUS—50 cs, Indussa Corp, Antwerp
ARSENIC—99 bbls, L J Buck, Gothenburg
22 dms, Kolon Trading Co, Gothenburg
BARIUM CARBONATE—1,996 bgs, Rotterdam
BARIUM SULFATE——337 cs, Picker X-Ray Corp, London
BEESWAX—100 bgs, R Weinstein, Valparaiso
100 bgs, S Zeitlins Sons, Paranagua
25 bgs, Machado & Co, Ciudad Trujillo
30 bgs, F D Keller & Son, Vera Cruz
28 bgs, Baldini & Co, Tampico
125 bgs, Istanbul
61 bgs, Progreso
62 bgs, Tampico
93 bgs, Puerto Plata
84 bgs, Paranagua
BERGAMOT OIL—20 cs, Coty Products Corp, Marseille
BILE ACIDS—21 dms, Merck & Co, Buenos Aires
BLEACHING POWDER—200 dms, Chemical Manufacturing Co, Liverpool
BOIS DE ROSE OIL—10 dms, International Flavors & Fragrances Inc, Callao
11 dms, Trubek Lab, Callao
11 dms, Peter Andrea Corp, Iquitos
3 dms, Hollander Trading Corp, Manaus
10 dms, Lo Curto & Funk, Belem
6 dms, Manaus
BONE—41 bgs, International Packers Ltd, Santos
741 bgs, Buenos Aires
BRONZE POWDER—15 dms, C H Forsman Co, Hamburg
40 dms, Allied Manufacturing Co, Hamburg
33 dms, Crescent Bronze Powder Co, Hamburg
25 dms, Hamburg
BRUCINE ALKALOID—1 cs, Frank Samuel & Co, Southampton
CALCIUM CARBONATE—2,800 bgs, Whittaker Clark & Daniels, Hull
600 bgs, Whittaker Clark & Daniels, Liverpool
600 bgs, Pluess Staufer, Antwerp
600 bgs, Antwerp
CAMPHOR OIL—15 dms, J Berlage, Keelung
50 dms, Norda Essential Oil & Chemical Co, Keelung
CAMPHOR POWDER—300 cs, Prentiss Drug & Chemical Co, Keelung
200 cs, Magnus Mabee & Reynard, Kobe
23 cs, Magnus Mabee & Reynard, Keelung
CANDELILLA WAX—188 bgs, Smith & Nichols, Tampico
188 bgs, Cornelius Wax Refining Corp, Tampico
313 bgs, Tampico
CARAWAY SEED—100 bgs, Foreign & Domestic Sales Corp, Rotterdam
50 bgs, Biddle Purchasing Co, Rotterdam
100 bgs, R J Spitz, Rotterdam
300 bgs, Rotterdam
CARBON, ACTIVATED—188 bgs, Connor Engineering Corp, London
10 bgs, Tragacanth Importing Corp, Rotterdam
CARNAUBA WAX—792 bgs, N American Cocoa Trading Co, Salvador
CASEIN—500 bgs, P A Dunkel, Buenos Aires
120 bgs, F H Paul & Stein Bros, Buenos Aires
5,500 bgs, E Lang, Buenos Aires
5,500 bgs, Buenos Aires
617 bgs, Hamburg
CASTOR OIL—200 tons, Archer Daniels Midland Co, Salvador
200 tons, George Degen & Co, Recife
340 tons, Santos
250 tons, Recife
CETYL OLEYL ALCOHOL—30 dms, A & S Corp, Nagoya
CHESTNUT EXTRACT—1,200 bgs, Barkey Importing Co, Naples
CHLORAL HYDRATE—50 kgs, Gallard Schlesinger, Liverpool
CHLORINATED RUBBER—300 bgs, C M C Chemicals Inc, Liverpool
a-CHLOROBUTYRIC ACID—2 dms, Liverpool
CINNAMON LEAF OIL—3 dms, Volkart Bros, Galle
CINNAMON QUILLS—78 bls, Fritzsche Bros, Colombo
75 bls, Max Van Pels, Colombo
CITRONELLA OIL—40 dms, Lo Curto & Funk, Puerto Barrios
100 dms, George Uhe Co, Keelung
50 dms, Keelung
COCHINEAL—50 bgs, Bank of N Y, Callao
COCONUT OIL—500 tons, Bank of America, Zamboanga
CODLIVER OIL—30 dms, Arista Oil Products Corp, Bergen
COPAIBA BALSAM—2 dms, Hollander Trading Corp, Manaus
COPAL GUM—140 bgs, O G Innes Corp, Manila
CORN OIL—200 tons, Corn Products Co, Rotterdam
CORNMINT OIL—1 dm, Fritzsche Bros, Santos
CRESYLIC ACID—26 tons, Van Oppen & Co, Liverpool
CUBE ROOT—1,231 bls, Merton Trading Co, Iquitos
DAMMAR GUM—52 cs, O G Innes Corp, Bangkok
DEGRAS—22 dms, Overseas Trading Corp, Liverpool
50 dms, Malmstrom Chemical Corp, Liverpool
81 dms, Lanaetex Products, Liverpool
78 dms, Gallard Schlesinger, Genoa
DYES, COALTAR—23 dms, Toms River Chemical Corp, Rotterdam
60 dms, H Bruckmann & Lorbacher, Hamburg
8 dms, Orlex Dyes & Chemical Corp, Hamburg
66 dms, H Bruckmann & Lorbacher, Hamburg
EARTH COLORS—450 bgs, Naftone Inc, Bremen
FENNEL LEAVES—111 bgs, Chase Manhattan Bank, Istanbul
FISHLIVER OIL—10 dms, Interocean Chemical & Minerals Corp, Yokohama
10 dms, Consumers Import Co, Yokohama
5 dms, Arista Oil Products Corp, Yokohama
FORMIC ACID—50 dms, Rotterdam
FURFURAL—889 tons, E I duPont de Nemours & Co, La Romana
GELATIN—64 dms, General Aniline & Film Corp, Hamburg
73 dms, B Young, London
16 bbls, Riches Nelson, Antwerp
600 bgs, First National Boston, Hamburg
101 dms, D H Burdett, Liverpool
223 bgs, Antwerp
48 bbls, Antwerp
GLUESTOCK—500 bls, A M Goldstein, Puerto Cabello
GLYCERINE—75 dms, Beecham Products, Liverpool
GLYCOCOLL—4 cks, American Roland Corp, Havre
GRAPHITE—250 bgs, Joseph Dixon Crucible Co, Colombo
250 bgs, Asbury Graphite Mills, Colombo
250 bgs, C Pettinos, Colombo
1,200 bgs, Asbury Graphite Mills, Bergen
125 bgs, C Pettinos, Havre
GUANIDINE NITRATE—20 dms, Terra Chemicals Inc, Bremen
GUAR GUM—200 bgs, T M Duche & Sons, Genoa
HEXACHLOROETHANE—270 bgs, Chemical Manufacturing Co, Liverpool
IODINE, CRUDE—140 dms, Bunge Corp, Yokohama
IRON BLUE—52 dms, Van Oppen & Co, Liverpool
LACTIC ACID—2 dms, Henley & Co, Liverpool
LAUREL WAX—11 bgs, Strohmeyer & Arpe, Buenaventura
LAVANDIN OIL—2 dms, Lo Curto & Funk, Cannes
10 cks, Lo Curto & Funk, Marseille
1 dm, Cannes
LAVENDER OIL—1 ck, Charabot & Co, Marseille
LEAD ACETATE—2 cks, Aceto Chemical Co, Liverpool
LEAD NITRATE—100 bbls, Antwerp
LEAD, WHITE—600 bgs, Rotterdam
LEMON OIL—93 dms, Ungerer & Co, Vera Cruz
13 dms, Ungerer & Co, Tampico
29 cs, Polarome International Co, Bremen
15 dms, Canada Dry Corp, Hamilton
LEMONGRASS OIL—1 dm, Lo Curto & Funk, Puerto Barrios
LIME OIL—1 dm, Port Au Prince
MAGNESIUM CARBONATE—70 cs, Chas L Huisking & Co, Genoa
1,200 bgs, Reheis Co, Liverpool
MAGNESIUM TRISILICATE—80 dms, Rotterdam
30 bgs, Rotterdam
MELAMINE—800 bgs, Yokahama
MENTHOL—50 cs, Kane Import Corp, Keelung
25 cs, Magnus Mabee & Reynard, Keelung
22 cs, Biddle Sawyer Corp, Marseille
50 cs, Norda Essential Oil & Chemical Co, Santos
400 cs, Mitsui & Co, Santos
200 cs, Lo Curto & Funk, Santos
50 cs, National City Bank, Santos
365 cs, American Far Eastern Syndicate, Santos
50 cs, Magnus Mabee & Reynard, Keelung
6 cs, Wah Chang Corp, Keelung
10 cs, Fritzsche Bros, Keelung
14 dms, Cannes
20 cs, Keelung
MERCURY—50 flks, Leghorn Trading Co, Leghorn
100 flks, Leghorn
METALLIC SODIUM—18 cs, Foundry Services Inc, Liverpool
N-METHYLACETAMIDE—2 dms, Aceto Chemical Co, Liverpool
MOLASSES—555 tons, Pacific Molasses Co, Salaverry
MONOSODIUM GLUTAMATE—10 dms, Nissho American Corp, Yokohama
150 dms, Ajinomoto Co, Yokohama
MONTAN WAX—60 bgs, A Fahner, Hamburg
MYRABOLANS EXTRACT—200 bgs, Tanimex Corp, Hull
NAPHTHALENE—1,402 bgs, Witco Chemical Co, Liverpool
1,098 bgs, J N Forker, Liverpool
357 bgs, Koppers Co, Liverpool
1,000 bgs, Ore & Ferro Corp, Rotterdam
834 bgs, Gallard Schlesinger, Antwerp
2,544 bgs, Antwerp
NUTMEG—78 bgs, R J Spitz, Singapore
25 bgs, K H Landes & Co, Port of Spain
OAK OIL—1 ck, Charabot & Co, Marseille
OLEYL ALCOHOL—25 dms, Olympic Shipping Co, Middlesbrough
OURICURY WAX—56 bgs, J W Hanson Co, Salvador
132 bgs, Cornelius Wax Refining Corp, Salvador
56 bgs, Frank B Ross, Salvador
56 bgs, M Argueso & Co, Salvador
PALM OIL—425 tons, Belawan Deli
PALMITIC ACID—340 bgs, Banta Corp, Hull
PATCHOULI OIL—10 dms, A Verley & Co, Penang
PECTIN—108 dms, T M Duche & Sons, Copenhagen
PHENANTHRENE—50 cks, Rotterdam
PHTHALIC ANHYDRIDE—2,400 bgs, Chematar Inc, Rotterdam
800 bgs, Hudson Shipping Co, Rotterdam
o-PHTHALONITRILE—45 bgs, American Cyanamid Co, Yokohama
a-PICOLINE—25 dms, International Chemical Corp, Liverpool
PIMENTO LEAF OIL—4 dms, Magnus Mabee & Reynard, Kingston
POLYVINYL ALCOHOL—1,050 bgs, Marubeni Iida Co, Kobe
POTASSIUM OCTAMETAPHOSRATE—151 dms, Terra Chemicals Inc, Rotterdam
PROPYLTHIOURACIL—10 dms, Lo Curto & Funk, Hamburg
PRUSSIAN BLUE—45 dms, Tar Residuals Inc, Rotterdam
QUINIDINE SULFATE—20 dms, Lo Curto & Funk, Bremen
6 dms, Lo Curto & Funk, Hamburg
6 dms, Burroughs Wellcome & Co, London
SACCHARIN—50 dms, Yokohama
SAFFLOWER—41 bgs, F D Keller & Son, Vera Cruz
R-SALT—10 kgs, W A Erickson & Co, Genoa
39 bbls, W A Erickson & Co, Rotterdam
SANDALWOOD OIL—9 cs, L A Champon & Co, Cochin
12 cks, George Uhe Co, Marseille
SEEDLAC—500 bgs, C H Timm, Bangkok
SESAME SEED—2,000 bgs, Independent Halvah & Candies, Puerto Barrios
560 bgs, A Sahadi & Co, Puerto Barrios
SODIUM ALGINATE—40 cks, E Mendell, Havre
SODIUM ALUMINATE—300 bgs, Chemical Manufacturing Co, Liverpool
50 dms, Chemical Manufacturing Co, Liverpool
SODIUM BICARBONATE—1,000 bgs, Chemical Manufacturing Co, Liverpool
SODIUM CYANIDE—150 dms, Ugine Industries, Havre
SODIUM NAPHTHIONATE—40 dms, Kaufman & Vinson, Kobe
SODIUM PERBORATE TETRAHYDRATE—1,100 bgs, Chemical Manufacturing Co, Liverpool
1,000 bgs, S American Minerals & Merchandise Corp, Rotterdam
SODIUM PEROXIDE—80 dms, Chemical Manufacturing Co, Glasgow
STEARYL ALCOHOL—250 cs, A & S Corp, Kobe
STRYCHNINE—3 cs, Prentiss Drug & Chemical Co, Liverpool
STRYCHNINE SULFATE—2 kgs, Frank Samuel & Co, Southampton
SULFUR, CRUDE—3,982 tons, E I Dupont De Nemours & Co, Coatzacoalcos
TALC—5,125 bgs, Charles Mathieu, Genoa
TARTARIC ACID—200 bgs, Nylos Trading Co, Genoa
TRAGACANTH GUM—5 cs, Tana Trading Corp, Khorramshahr
TRICHLOROETHYLENE—632 tons, Miny Corp, Venice
20 cans, Brauner & Co, Hamburg
ULTRAMARINE BLUE—180 bgs, Whittaker Clark & Daniels, London
UREA—1,000 bgs, International Chemical Corp, Yokohama
VANILLA BEANS—68 cs, Thurston & Braidich, Vera Cruz
VETIVER OIL—2 dms, Fritzsche Bros, Port Au Prince
WAX—450 bgs, Hostawax Co, Bremerhaven
WOOL ALCOHOLS—60 cs, Traders Service Corp, Liverpool
ZINC OXIDE—1,440 bgs, Hercules Powder Co, Vera Cruz
200 bgs, D F Young, Liverpool
480 bgs, London
ZINC YELLOW—200 bgs, Revelli Chemical Co, Antwerp

## Los Angeles

CALCIUM CARBONATE—1,320 bgs, Pluess Staufer, Antwerp
CASEIN—600 bgs, Borden Co, Buenos Aires
COPPERAS—500 bgs, Mattoon & Co, Kobe
MOLASSES—1,800,577 gals, S Western Sugar & Molasses Co, Rio Haina
864,429 gals, S Western Sugar & Molasses Co, San Pedro
NAPHTHA—137,725 bbls, Union Oil Co, Matsuyama

## Philadelphia

ASBESTOS FIBER—500 bgs, Chas Kurz & Co, Lourenco Marques
CALCIUM CARBONATE—3,200 bgs, Pluess Staufer, Antwerp
CAMPHOR POWDER—100 cs, Vicks Chemical Co, Kobe
CASEIN—4,000 bgs, National Casein Co, Buenos Aires
CETYL ALCOHOL—500 cs, A & S Corp, Yokohama
CHESTNUT EXTRACT—800 bgs, Chase Manhattan Bank, Genoa
DIMETHYLNAPHTHALENE—6 dms, Terra Chemicals Inc, Rotterdam
NAPHTHALENE—16,245 bgs, Ventspils, Latvian
PYRIDINE—80 dms, Antwerp
QUEBRACHO EXTRACT—2,186 bgs, Tan American Corp, Buenos Aires
SODIUM SILICOFLUORIDE—360 bgs, Riches Nelson, Rotterdam
VANILLA BEANS—110 cs, Zink & Trieste, Tampico
29 cs, Zink & Trieste, Genoa

## San Francisco

AMMONIUM CHLORIDE—400 bgs, Chemical Manufacturing Co, Manchester
ANTIMONY—40 cks, H M Newhall, Manchester
FERROUS SULFATE—454 bgs, C Itoh, Kobe
POLYVINYL ALCOHOL—900 bgs, Kobe
ZINC CHLORIDE—23 dms, P W Bellingall, Rotterdam

## Food Additive Methodology: Source of FDA Headaches

Methodology—the means by which food products are to be analyzed and the quantities of additives contained therein determined—is still giving officials of Food & Drug Administration one of their biggest headaches in administering the new food additives law.

Petitioners for food additives clearances are still too often overlooking the requirement that they present a practical method for determining the presence of an additive in foods when they file their petitions, according to L. M. Beacham, of FDA, but too often when methods are proposed they are unreliable or inappropriate.

In a paper delivered to the meeting of the Institute of Food Technologists last week, Mr. Beacham said that the inadequacy of the analytical method is usually not apparent upon inspection and is discovered only after the FDA chemists have lost many man hours of work endeavoring to produce satisfactory test results.

Methods, in addition to being reliable and of appropriate sensitivity, should also be improved to require a minimum of time of specially designed equipment. Some of the methods are long and complex, he said, only because no one has taken the time to perfect short and simple ones.

## Oxo Cuts Raise Question

—Continued from page 3

year—at Chocolate Bayou, Tex. The facility is expected to be able to turn out some 60 million pounds of assorted oxo alcohols annually.

On top of this, there are reported to be a number of other potential oxo alcohol producers waiting on the sidelines. Among them: Jefferson Chemical Company, Shell Chemical Company and Allied Chemical Corporation.

Whether lower prices will discourage these or other ventures remains, of course, to be seen. But the trade last week apparently was willing to give this method a try.

Enjay initiated price cuts of 2 to 4 cents a pound for its entire oxo alcohol line—hexyl, iso-octyl, decyl and tridecyl alcohols. Competitors followed, Union Carbide Chemicals Company and Eastman Chemical Products, Inc., adding 2-ethylhexyl alcohol to the list.

Under new schedules, iso-octyl and 2-ethylhexyl alcohols are both quoted at 18 cents a pound in tankcars. The former had been one-quarter cent cheaper.

Price reductions on plasticizers derived from oxo alcohols, originated by Carbide, range from 2 cents a pound on phthalates to 4 cents a pound on adipates.

## Dry Cleaning Chemicals

—Continued from page 7

test in Washington, D. C. This promised an additional boost for perchloroethylene ahead of petroleum solvents as the favored dry cleaning solvent.

But just recently E. I. duPont de Nemours & Co. came up with a custom-made compound, a fluorocarbon, which is said to clean garments in one-third the time required by conventional solvents (OPD 3/27/61). Further, the product is said to be odorless and safer.

Next Pittsburgh Plate Glass Company announced it had a new process based on vacuum drying technics which promised to preserve the market for perchloroethylene (OPD 4/24/61).

"Pennsorb" is reportedly a "single-product solvent conditioner, which simplifies machine operation and servicing, keeps detergent consumption at a minimum and assures cleaner, brighter garments free of objectionable odors."

In addition to initial laboratory research, "Pennsorb" was put through extensive field testing in coin-operated and commercial systems, before being introduced, the company says.

## Hercules (Canada) Slates

—Continued from page 7

Ltd., will provide raw materials in the form of prime stumps and logs to the first for processing.

Hercules British Honduras, Ltd., will have its new plant at Mango Creek, British Honduras, about seventy-five air miles from Belize, where sales offices will be located.

## Bids Wanted

**Alcohol, Ethyl**, Specially denatured, aircraft, in accord with Mil. Spec. MIL-A-6091A (ASG) dtd. Mar. 15, 1957. Delivery in drums (Packed 54 gallons per drum in 55 gal. drums) Bid IFB 36-600-61-406, May 23. Directorate, Procurement and Production, Middletown Air Material Area, Oldstead Air Force Base, Pa.

**Argon, Liquid**, 2 pct. oxygen, minimum O maximum 217500 cu ft, 75 cylinders, bid IFB ORD—11-070-61-193B, May 31. Requirements Type Bid. Resultant Contract to extend through 30 June, 1962. All companies desiring copies of this invitation for bids are requested to contact their local ord. dist. Rock Island Arsenal, Rock Island, Ill.

**Ascorbid Acid** Injection USP, 50 MG ¾ GR MG (¾ GR) per CC 2 CC 25S, 6,816 bxs, Bid IFB 32-505-61B, 11 May. An additional quantity of 50 percent is being reserved for labor surplus areas only under a partial determination. Military Medical Supply Agency, 3rd Avenue and 29th St, Brooklyn 32, NY

**Carbon Dioxide**, various quantities for delivery to NAS Yukon, Fla. for the period from July 1, 1961 to June 30, 1962, delivery required within two and twenty four hours after receipt of individual orders. Bid IFB 207-79-61, May 24. Supply Officer Naval Air Station, Jacksonville, Fla.

**Calcium Carbide, Technical**, Formula CAC2, Stock nr. GA 6810-230-3936 Spec. Fed O-C-101 A (1) Deliveries to NNSY Portsmouth, Va. Est qty 1,800,000 pounds. Bid IFB 189-398-61B, June 2, Contracting Officer Purchasing Department NSC, Norfolk, Va.

**Ethylene Dichloride**, Technical Grade, min assy 99.8 percent. To be delivered in 4,000 gallon tank trucks. 256,000 pounds. Bid IFB 174-175-61, 22 May. Last day for honoring requests for bid sets on this IFB May 15. Naval Propellant Plant, Indian Head, Md.

**Liquid Chlorine**—1,710,000 lbs. Bid, IFB-Civeng-49-080-61-25—June 1. US Army Engineer Dist., Washington Corps of Engineers, First and Douglas Sts., NW.

**Lime, Chemical, Hydrated** (Bulk) 2,500 tons, Furnishing and delivering, 33 1/3 percent, more or less. Bid IFB -CIV-ENG-49-080-61-27. Bid Opening June 1. US ARMY Engineer Dist., Washington Corps of Engineers, First and Douglas Sts, NW.

**Tricholoroethylene**, in accord with Mil Spec MIL-T-7003, dtd Sept. 5, 1950. For degreasing purpose. Packed 55 gallons per drum. Bid IFB 36-600-61-300, May 23. Directorate, Procurement and Production, Middletown Air Material Area, Olmstead Air Force Base, Pa.

**Thiamine Hydrochloride** Injection USP 50 MG (¾ grain) per cc, 5 cc 57,500 btl. IFB 32-505- 61-B Bid Opening May 11. Military Medical Supply Agency, 2d Avenue and 29th St. Brooklyn 32, NY.

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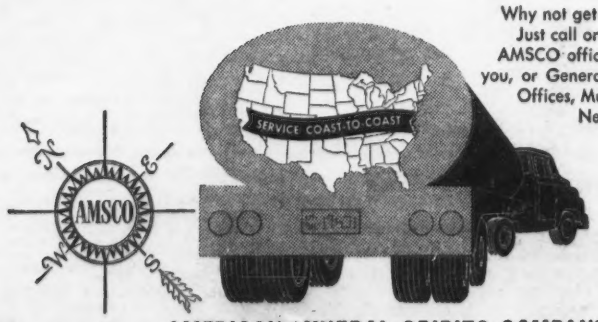


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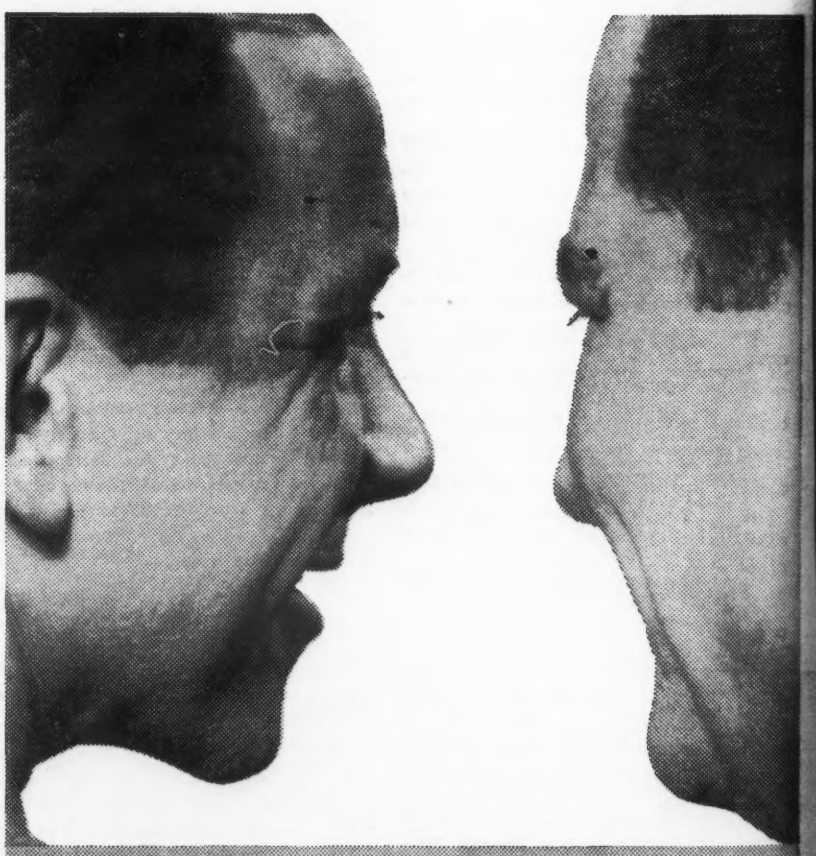

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